Goods Movement Initiatives

2009 Update

Metropolitan Transportation Commission

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METROPOLITAN
TRANSPORTATION
COMMISSION

Table of Contents

Why Focus on Goods Movement?

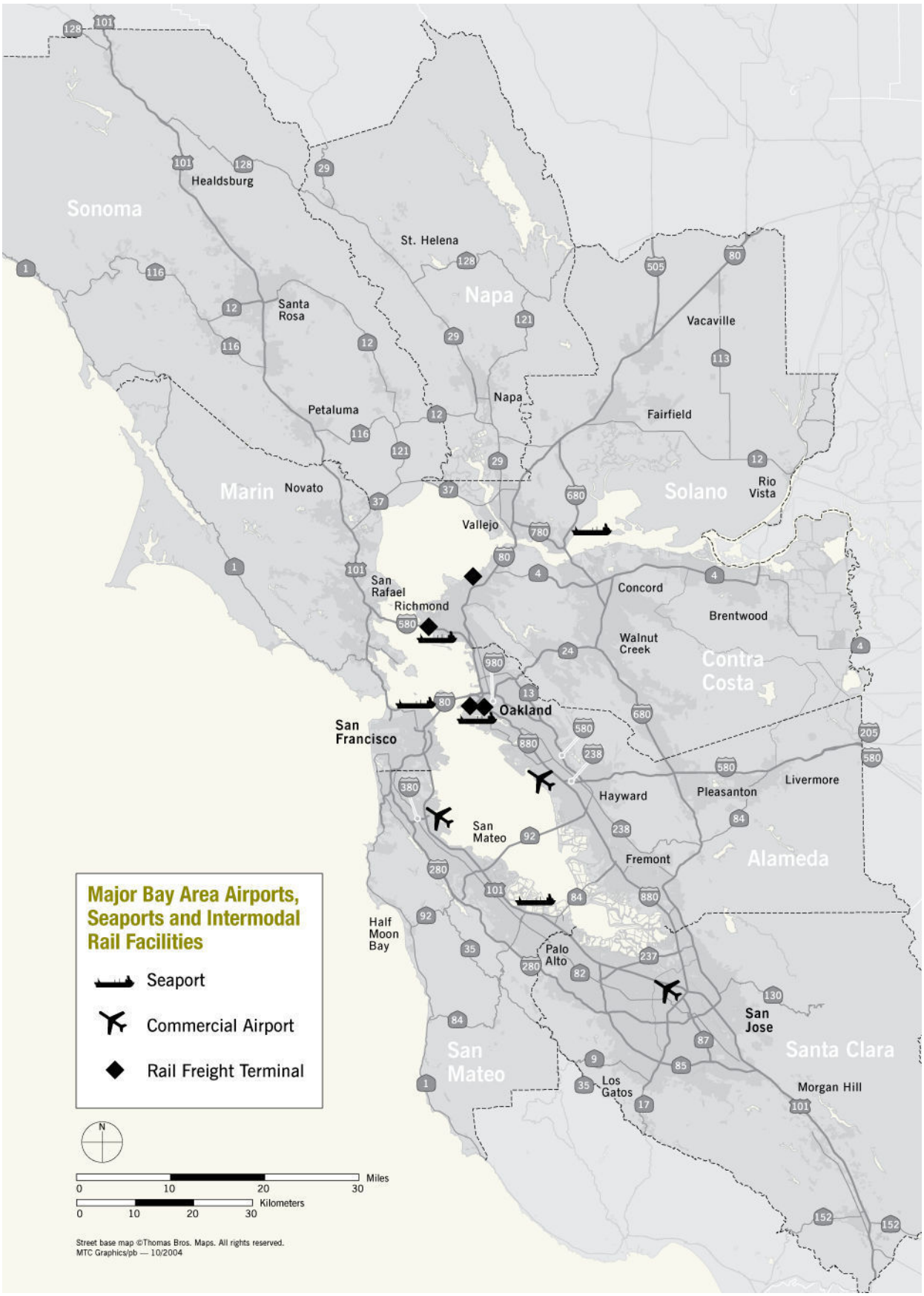
Goods movement is a critical component of the Bay Area's economic and transportation system. Whether delivering construction materials or consumer goods to the growing population, or exporting electronics and food throughout the world, a robust goods movement system is essential for both businesses and residents to function and thrive in the Bay Area.

The Bay Area is home to five seaports, including the Port of Oakland, which is the fourth busiest container port in the country and plays an important role in supporting the state's agricultural sector — providing a critical means of exporting agricultural products ranging from produce from the Central Valley to wine from the Napa Valley to the rest of the world. There are also three commercial airports and rail facilities serving the two major freight railroads operating in the western United States and smaller short haul rail services. In addition, trucks ranging from small delivery vans to large diesel tractor trailers utilize the region's highway network and local roads to transport goods to market.

Goods movement is vital to Bay Area businesses and residents. The 2004 *Regional Goods Movement Study*[1] found that:

- Manufacturing, freight transportation and wholesale trade account for nearly 40% of regional output,
- Bay Area business spend over $6.6 billion on transportation services,
- Goods movement businesses create over 10% of regional employment, and
- Goods movement business are critical to economic diversity, providing many high paying blue and increasingly green collar jobs.

[1] The 2004 *Regional Goods Movement Study for the San Francisco Bay Area* is located on the MTC website at: http://www.mtc.ca.gov/planning/rgm/.


Major Bay Area Airports, Seaports and Intermodal Rail Facilities
Seaport
Commercial Airport
Rail Freight Terminal
Sonoma
Napa
Solano
Marin
Contra Costa
Alameda
Santa Clara
San Mateo
Healdsburg
St. Helena
Santa Rosa
Petaluma
Novato
Vacaville
Fairfield
Rio Vista
Vallejo
San Rafael
Richmond
Concord
Brentwood
Walnut Creek
Oakland
San Francisco
Hayward
Pleasanton
Livermore
San Mateo
Fremont
Half Moon Bay
Palo Alto
San Jose
Los Gatos
Morgan Hill
Miles
Kilometers
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About this Update

In 2004, MTC completed the first *Regional Goods Movement Study* for the San Francisco Bay Area. The plan was adopted as part of the Transportation 2030 Regional Transportation Plan. This *Goods Movement Initiatives Update* focuses on regional efforts since that time. The update includes information on two key initiatives:

- **Trade Corridor Improvement Fund (TCIF)**. The TCIF program was created as part of Proposition 1B (Prop 1B), the infrastructure bond approved by California voters in November, 2006. TCIF provides funding for high priority goods movement infrastructure improvements in corridors that carry large volumes of freight. The statewide program includes approximately $2.5 billion aimed at leveraging investment from local and private sources for projects that can be in construction by 2013.

- **Implications of Local Land Use Decisions on the Goods Movement System.** The 2004 *Regional Goods Movement Study* found that land use and real estate market trends in the Bay Area are reducing the supply of land for goods movement businesses, while demand for goods movement services continues to grow. This update provides a more in-depth analysis of the current land use trends and the implications these trends have on the goods movement system.

Although MTC has primarily focused on the two initiatives identified above, additional efforts since the last Regional Transportation Plan also include ongoing efforts with our partners to: improve the regional goods movement system, incorporate goods movement considerations in regional planning efforts, reduce impacts on local communities, and advocate for funding for goods movement projects and programs. Current and future work to this end includes, but will not be limited to:

- **Funding for Goods Movement Programs.**

    - **New Federal Transportation Program Authorization.** MTC will be an advocate for a federal program focused on goods movement that includes developing a National Freight Transportation Plan and implementing user-based fees. The federal government must help ensure that West Coast ports and goods movement corridors can meet the projected volumes of trade.

    - **Container Fees.** MTC supported efforts to establish a statewide container fee at the three major ports of Los Angeles, Long Beach and Oakland. Although potential legislation to require such a fee was vetoed in 2008, MTC will continue to advocate for user-based fees.

- **Clean Air Initiatives.** Prop 1B included $1 billion for air quality programs focused on goods movement activities in California. The Bay Area Air Quality Management District (BAAQMD) is developing various programs for the bond, including a diesel truck replacement program. MTC has committed $45 million over five years to a similar “clean truck” program in the Transportation 2035 Plan.

- **Intraregional Goods Movement:** Recently, much of MTC’s work in goods movement has been focused on statewide efforts to improve major trade corridors. This was

partially in response to the state's TCIF program, as well as state-led efforts in developing a Goods Movement Action Plan. However, there are also numerous more locally-oriented goods movement issues in need of attention. MTC's primary work on local goods movement issues since the last RTP has been the completion of the *Implications of Local Land Use Decisions on the Goods Movement System Study*. MTC will continue to encourage and support local and county efforts to improve local goods movement within the region.

- **West Coast Corridor Coalition (WCCC):** The WCCC is a coalition of state, regional and local agencies, as well as ports, along the west coast that works to advance the development of solutions to mobility challenges facing the west coast states. The impact of freight on our transportation networks is a key element of the WCCC agenda and the coalition is working to advocate for a strong federal freight program. MTC is a member agency of the WCCC and participates in the coalition's planning and advocacy efforts.

I. Trade Corridors Improvement Fund

Introduction

The goods movement transportation system is a complex network including ports, rail facilities and rail lines, and highway and roadway infrastructure. It is closely tied to state, national and international transportation systems, with California serving as the nation's primary gateway for goods manufactured in Asia. High volumes of international cargo, as well as the goods serving the local population and supporting the local economy are straining the overburdened and often outdated California goods movement system. The impact can be seen not only in delays for cargo, but congestion on the region's highways, rail lines, and local roads. In addition, high levels of air pollution, safety concerns, local congestion and noise have disproportionately impacted those communities located near goods movement infrastructure.

In November, 2006, California voters approved Proposition 1B (Prop 1B), a $19.9 billion transportation infrastructure bond. Prop 1B included a $2 billion Trade Corridors Improvement Fund (TCIF) to improve goods movement infrastructure and reduce the impact of goods movement on local communities statewide. Prop 1B stipulates that the TCIF program will be allocated by the California Transportation Commission (CTC) in corridors with high volumes of freight movement. Eligible projects outlined in Prop 1B include: highway and rail projects that improve access to airports and seaports, projects that enhance the efficiency and capacity of ports, and border access improvements between Mexico and California. TCIF is the only funding program dedicated exclusively to improvements to the state's goods movement system.

Faced with funding needs that greatly outweighed the funds available, in 2008 the CTC and Caltrans approved adding approximately $500 million from the State Highway Account to the TCIF program. The additional funds are available for state-level priorities that are critical to goods movement, bringing the total funding available to $2.5 billion. In addition, the CTC programmed roughly 20 percent more funds than currently available, assuming new revenue sources in the future and challenges in project delivery. This brought the total TCIF program approved by the CTC to just over $3 billion.

Northern California Goods Movement Corridors

MTC's 2004 *Regional Goods Movement Study* documented the major transportation infrastructure that makes up the regional goods movement system. In terms of volume, more than 80 percent of the goods movement in the Bay Area involves trucking in several major corridors: Interstates 880, 580, and 80, and U.S. Highway 101 South, with volumes descending in that order. These corridors are also some of the most congested commute corridors in the region, consistently among the most congested corridors in the annual State of the System report published by MTC and Caltrans. Interstates 880 and 580 serve both as access routes for major interregional and international shippers and also serve Bay Area residents and businesses as primary intraregional corridors. Interstate 80 serves primarily as a connector to the transcontinental truck network, and U.S. 101 acts as a gateway corridor at the southern end of the region, with its highest volume of truck traffic between San Jose and San Francisco.

The region is also served by an extensive rail network, concentrated primarily around Oakland and stretching along the East Bay and the Suisun Bay. The Union Pacific (UP) line to Roseville

and the Burlington Northern Santa Fe (BNSF) line to Stockton are the two primary rail corridors serving the region and heavily used by both freight and passenger trains.

In developing the focus for the TCIF program, MTC partnered with other regional planning agencies in the Central Valley and identified two high priority interregional goods movement corridors: 1) I-80 – known as the Central Corridor; and 2) I-880/238/580 – known as the Altamont Corridor. These two corridors carry the highest volume of goods in the Bay Area, and serve major goods movement and industrial interests in the region. Investment in these corridors together ensures the future viability and growth of the Port of Oakland as a trade gateway for both imports and exports, and also strengthens the economic interconnections of the Sacramento and San Joaquin Valley regions with the Bay Area. Given the statewide nature of the TCIF program, interregional connections were deemed critical for our success in securing funding. MTC and our partner regional agencies have focused our efforts on developing a comprehensive program of rail and highway projects along these two trade corridors.

- **The Central Corridor** is a highway and rail corridor running from the Port of Oakland roughly along I-80 to Sacramento and I-5 and across the Sierra Nevada Mountains on to Chicago, connecting the Bay Area and Sacramento regions with one another and the major transcontinental highway and rail routes heading out of Northern California.

- **The Altamont Corridor,** which runs from the Port of Oakland, along I-880/238/580 to the Central Valley, connects with I-5 and SR 99 at the northern end of San Joaquin Valley and eventually with the southern transcontinental rail route at the southern end of the Central Valley. This corridor connects the State's agriculture community and the Port of Oakland and also serves the growing population of the Central Valley.

Regional Partnerships

Unlike many other state transportation programs, the Prop 1B legislation included no mandated regional funding allocation for the TCIF program. Because of the interregional nature of goods movement and to compete effectively with Southern California for funding, it was critical for Northern California agencies to work collaboratively across jurisdictional boundaries. MTC's approach was to work with neighboring regions to develop a comprehensive Northern California trade strategy, coupled with a specific program of projects, to address the growing needs of goods movement in Northern California. Initial collaboration included the San Joaquin, Sacramento and Stanislaus Councils of Governments, as well as the Port of Oakland. Over time, the coalition grew to include six additional councils of governments (Fresno, Kern, Tulare, Madera, Merced, and Kings Counties) from the San Joaquin Valley, and the Ports of Stockton and Sacramento.

This unprecedented partnership resulted in a coalition representing 23 of the state's 58 counties, bridging the north-south and urban-rural divide. In addition, the coalition collaborated with the Capitol and Altamont Corridor Express passenger services, which both operate on rights of way owned by the major freight railroads. The coalition also worked with the freight railroads and regional business interests in both the Bay Area and the Central Valley. This foundation of interregional collaboration will hopefully serve to advocate for Northern California's needs beyond the Infrastructure Bond, extending particularly to the next round of federal transportation reauthorization.

Throughout 2007, MTC worked with the CTC, Caltrans, legislative staff, other regional agencies and stakeholders to develop the TCIF program. The major goods movement regions in the state (Bay Area/Central Valley, Los Angeles/Inland Empire, and San Diego) all formed corridor coalitions and developed regional programs of priority projects for the TCIF program. The CTC established programming ranges for the major corridor coalitions to establish a reasonable and fair geographic allocation of funds. Individual project sponsors from within each coalition were responsible for sponsoring projects and submitting actual project applications for TCIF funding. Table 1 details the programming ranges adopted by the CTC in November, 2007.

Table 1: Programming Ranges Adopted by the California Transportation Commission
Adopted November, 2007

Region	Low	High
Los Angeles/Inland Empire	$1,500	$1,700
Bay Area/Central Valley	$640	$840
San Diego	$250	$400
Other corridors	$60	$80
Administrative fees (Dept of Finance)	$40	$40
Total	**$2,490**	**$3,060**

TCIF Program of Projects

Regional agencies in Northern California came to consensus around a list of 15 high-priority goods movement investments to be nominated for the TCIF program. The program consists of targeted, strategic investments in rail, highway and port infrastructure to provide a balanced, multi-modal approach to goods movement. The integrated program is designed to meet current and future requirements to move both people and goods throughout the state and the nation quickly, reliably and safely, with less highway congestion and pollution.

Projects were selected based on their ability to meet the TCIF program guidelines adopted by the CTC, as well as their role in strengthening and enhancing the two primary Northern California trade corridors (the Central and Altamont corridors).[2] The Prop 1B legislation set forth strict requirements for project funding, requiring projects to have a minimum 1:1 match of non-state dollars—local, federal or private funds—on which to leverage the bond funds. (Those projects funded with the additional money added to the TCIF program from the State Highway Account did not require a 1:1 match.) Additionally, the CTC requires all projects to be in construction no later than December, 2013.

Because the needs far outweigh the current funding available, the regional agencies took a phased approach to developing the list of priority goods movement projects for Northern California. Tier 1, totaling a funding request of approximately $940 million, reflects the highest priority projects for each region and was the program of projects submitted to the CTC by individual project sponsors. The coalition attempted to keep the Tier 1 list close to the programming range approved by the CTC for the Bay Area/Central Valley coalition. The projects

[2] See TCIF Guidelines: http://www.catc.ca.gov/programs/tcif.htm.

included in Tier 1 are listed in Table 2 on the following page. The second tier of projects, Tier 2, totals $470 million, and is made up of those projects that play an important role in goods movement in the corridors but that were not recommended for the initial TCIF program. These projects often lacked the matching funds required for the program, were deemed unlikely to meet the CTC's December 2013 deadline for construction, or were not as critical for goods movement as those projects in Tier 1.[3]

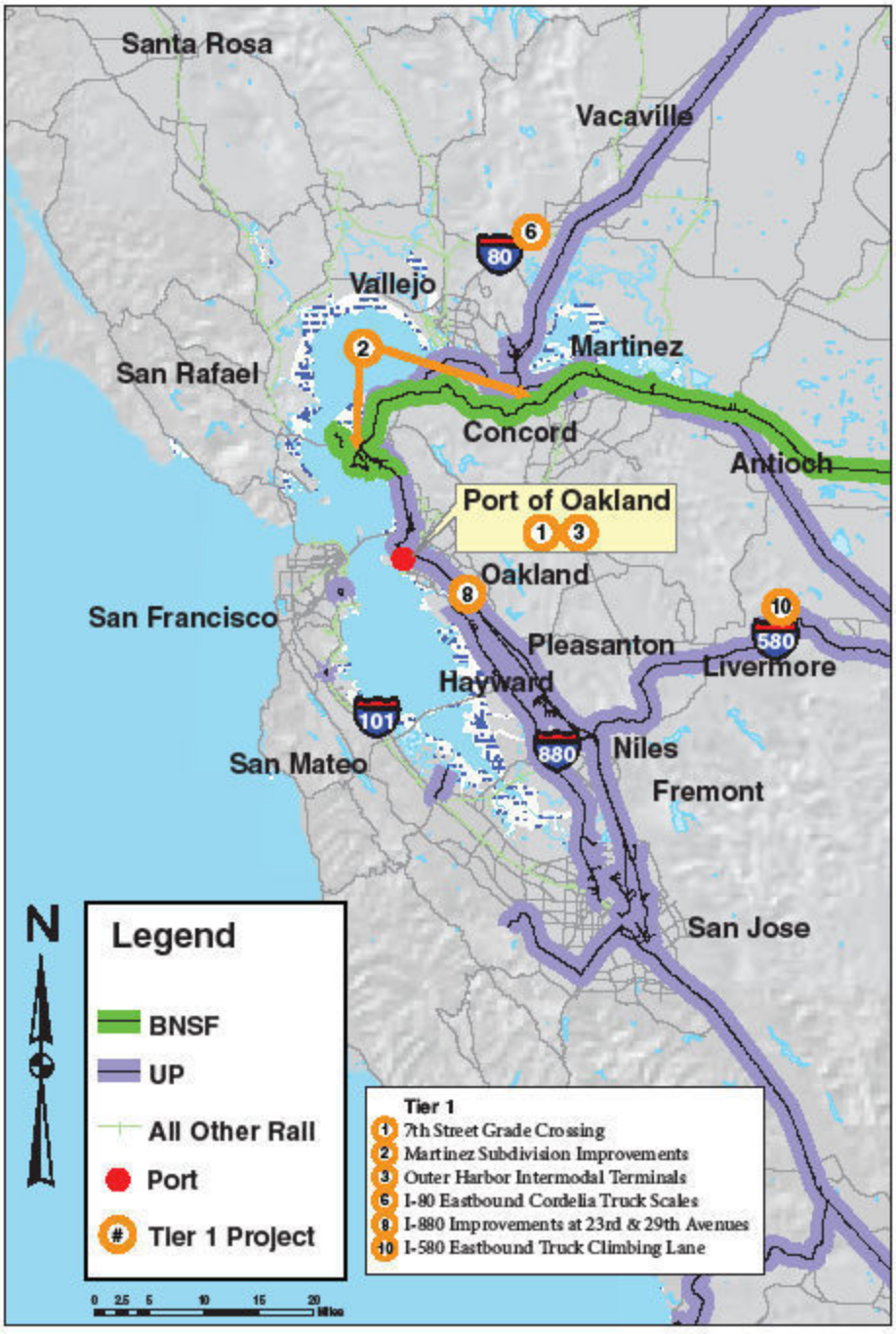
Table 2: Northern California Trade Corridors Coalition Tier 1 TCIF Projects

Project Name	County	TCIF Request	TCIF Programmed
Anchor Projects			
7th Street Grade Separation	Alameda	$175,000	$175,000
Martinez Subdivision Rail Improvements	Alameda	$107,500	$74,000
Outer Harbor Intermodal Terminals	Alameda	$110,000	$110,000
Central Corridor			
Track & Tunnel Improvements, Donner Summit*	Placer	$43,000	$43,000
Sacramento Intermodal Track Relocation	Sacramento	$20,000	$20,000
I-80 Eastbound Cordelia Truck Scales Relocation	Solano	$49,800	$49,800
Altamont Corridor			
I-880 Reconstruction, 23rd & 29th Avenues	Alameda	$73,000	$73,000
I-580 Eastbound Truck Climbing Lane	Alameda	$64,300	$64,300
Tehachapi Trade Corridor Rail Improvements	Kern	$54,000	$54,000
Shafter Intermodal Rail Facility	Kern	$15,000	$15,000
SR 4 West Cross-town Freeway Extension	San Joaquin	$96,800	$96,800
San Joaquin Valley Short Haul Rail Project	Stanislaus	$26,000	$22,500
ACE Right of Way Purchase for Short Haul Rail	San Joaquin	$75,000	$0
Dredging Projects			
San Francisco Bay to Port of Stockton Channel Dredging	San Joaquin/ Contra Costa	$17,500	$17,500
Sacramento River Deep Water Dredging	Yolo	$10,000	$10,000

*Project was later withdrawn from the TCIF program by Caltrans and the Union Pacific.

[3] For a full listing and map of the Tier 1 and Tier 2 projects, see Appendix A, Northern California Goods Movement Strategy, which was submitted to the California Transportation Commission on January 17, 2008.

Bay Area Trade Projects



Anchor projects

Both the Central and the Altamont Corridors are anchored at the Port of Oakland, the fourth busiest container port in the country. The Port submitted three high priority projects located at or near the Port of Oakland that are critical projects for both the Central and Altamont Corridors: 7th Street Grade Crossing, Martinez Subdivision Improvements and expanded intermodal capacity at the Outer Harbor Intermodal Terminal (OHIT). The 7th Street and OHIT projects both create the capacity to move more trains with fewer delays into and out of Oakland and create operational synergies with the Martinez Subdivision Improvements. The Martinez project focuses on improving the efficiency of movements and increasing operational flexibility heading north out of the Port of Oakland on mainline used by Union Pacific (UP), Burlington Northern Santa Fe (BNSF), and the Capital Corridor/Amtrak service. Since the original adoption of the TCIF program, the scope of the Martinez Subdivision Improvements has changed to focus on a targeted rail connector that will improve operational efficiency and reduce the impact of rail traffic on local communities. The project also now includes a grade separation at Marina Bay in Richmond, which is a top priority for the City of Richmond and will help reduce the impacts of goods movement on the local community.

Central Corridor

The Central Corridor includes both UP mainline running from the Port of Oakland through Sacramento and over the Donner Summit to the transcontinental route to Chicago as well as I-80, a major route serving Northern California freight needs. The one highway project recommended in the Central Corridor was the relocation of the I-80 eastbound Cordelia Truck Scales. Proposed rail projects include improvements to the mainline both directly out of the Port of Oakland (the Martinez Subdivision) as well as through Sacramento (the Sacramento Rail Depot Realignment). In addition, a critical bottleneck connecting the region with all points east is at Donner Summit. The Donner Summit improvements would allow for double-stacked trains to traverse mountain tunnels, improving the capacity, velocity and throughput of the Central Corridor and cutting nearly a day off the travel time for a train heading to or from the Bay Area from points east of California. However, although the project was approved by the CTC as part of the TCIF program, negotiations between the state and UP were unsuccessful. At this time, UP is proceeding independently with limited improvements over Donner Summit and Caltrans has officially withdrawn the project from the TCIF program.

Altamont Corridor

The Altamont Corridor is composed of a broad mix of highway and rail projects. The Altamont Corridor is a key corridor for agricultural products being exported from the Central Valley via the Port of Oakland, as well as for the growing warehousing and distribution facilities located in the Central Valley. The highway projects identified in the program are specifically targeted towards strategic investments along corridors with high volumes of truck movements. The eastbound Truck Climbing Lane on I-580 over the Altamont Pass will provide several safety and operational improvements, relieving traffic congestion and delay by separating slow-moving traffic from existing mixed-flow lanes. Improvements on I-880 at 23rd and 29th Avenues will also improve safety on I-880, the major truck route in the Bay Area, and increase efficiency through the corridor.

Short haul rail services connecting the Port of Oakland and the Central Valley have been analyzed for a number of years as a strategy to move trucks off I-580 and on to rail. In all cases, the economic competitiveness of short haul rail compared to truck over the same distances

remains a challenge. However, several short haul rail initiatives are currently underway in the Central Valley, and three projects related to such service were included in the Northern California TCIF program submission: 1) Rail right of way preservation in the Altamont Corridor between Tracy and Fremont that can serve as the backbone for a future short haul service to multiple points in the Central Valley; 2) the development of a proposed short haul rail terminus in Stanislaus County at Crows Landing, and 3) a new intermodal service in Shafter. There are remaining issues regarding the operational and financial viability of short haul rail programs that are being evaluated by partners in the Central Valley and the sponsors of the TCIF short haul projects as they work to advance the projects.

Dredging Projects

Two dredging projects were also submitted as part of the TCIF program. Although the federal government is the primary source of funds for harbor deepening projects, all local agency partners must fund a local share of federal dredging projects. The Ports of Stockton and Sacramento both requested TCIF funds to help complete the local funding share requirement and access federal funds. Deepening the channels enables the ports to serve a wider variety of ships, providing an alternative to trucking goods on the region's highway network and potentially reducing congestion and providing air quality benefits, as well as economic development opportunities at both ports.

Adopted TCIF Program

The Northern California coalition was able to secure programming recommendations of $825 million for the projects on the Tier 1 TCIF list. The projects include six projects located within the Bay Area, and fourteen from the Northern California coalition. In light of statewide goods movement needs significantly outweighing the funds available, the CTC overprogrammed the TCIF program by approximately 20 percent, or $500 million. This encourages partners from throughout the state to work together to secure additional funding for the program, and also reflects the fact that many of these projects have significant hurdles to clear before they proceed to construction. If projects fail, for whatever reason, the overprogramming and the identification of Tier 2 projects helps build flexibility into the program.

Projects are now proceeding with planning and development and are being monitored on a quarterly basis. In 2010, the CTC will evaluate the TCIF program. This evaluation will include an assessment of project development, to determine if projects are truly on track to meet the December 2013 construction deadline, an evaluation of the environmental analysis of each project, and an analysis of the funding available for the program. At that time, MTC and its regional partners will evaluate our program and determine any necessary next steps, including possibly augmenting the program, re-scoping projects, and supplementing funding plans or eliminating projects that fail to meet environmental requirements.

Bay Area TCIF Projects

Project	Description
Outer Harbor Intermodal Terminals	The OHIT provides new intermodal capacity at the Port of Oakland, on the former Oakland Army Base. The project will allow the containers to be processed more efficiently, improving intermodal service at the Port.
7th Street Grade Separation	The grade separation will separate truck traffic on 7th Street from increased rail movements, eliminating conflicts between trucks and trains at a major intersection adjacent to OHIT and a major entrance to the Port of Oakland.
I-80 Eastbound Cordelia Truck Scales Relocation	The current truck scales are undersized and unable to process existing truck volumes, resulting in truck queues on the interstate, creating dangerous weaving conditions and forcing the scales to periodically close. New, relocated truck scales will improve throughput and safety for both trucks and passenger vehicles.
Martinez Subdivision Improvements	The Martinez Subdivision is the primary rail line serving the Port of Oakland. It is owned by Union Pacific (UP), and used by UP, Burlington Northern Santa Fe (BNSF) and the Capitol Corridor, San Joaquin and Amtrak services. Improvements will increase efficiency and operational flexibility along the line, and improve the velocity, throughput and reliability of both freight and passenger service.
San Francisco Bay to Port of Stockton Channel Dredging	Dredging the channel to 40 feet will improve the goods movement capacity throughout the channel, allowing the channel to accommodate a greater variety of vessel traffic and increased goods movement. The Port of Stockton and Contra Costa County are co-local sponsors.
I-580 East Bound Truck Climbing Lane	A new truck climbing lane over the Altamont Pass will provide congestion relief at a major bottleneck for goods traveling between the Bay Area and the Central Valley. The truck climbing lane will improve freeway safety and operations and relieve traffic congestion and delay by separating slow-moving traffic from existing mixed-flow lanes and reducing weaving.
I-880 Improvements at 23rd and 29th Avenues	I-880 is the major truck route in the Bay Area, serving the Port of Oakland and providing access to numerous intermodal facilities including the Oakland International Airport and U.S. Mail and UPS distribution centers. This project will provide operational and safety improvements at 23rd and 29th Avenues, where the accident rate is five times the State average.

In addition to those projects identified above, several other important projects that are in development were identified during the TCIF process and may be considered in the future.

- State Route 152: Santa Clara Valley Transportation Authority, working with regional councils of governments located along SR 152 from Santa Clara through the Central Valley to I-99, is considering a major realignment of the corridor. SR 152 is a heavy truck corridor and provides one of the few parallel routes connecting the Bay Area and Central Valley that can help relieve the chronically congested I-580. Planning work is underway for the corridor.

- Other Bay Area Ports: There are five seaports in the Bay Area, and all play important roles in supporting the regional economy and providing goods and services to the region's residents. The Ports of Richmond and San Francisco both had potential projects for the TCIF program, but projects from neither port were selected for the final TCIF program due to the timing of construction and requirements for matching funds. However, both ports provide important infrastructure for facilitating goods movement and

getting trucks off the road. Maintaining rail access to their facilities and investing in port infrastructure are key priorities for the Port of San Francisco, as freight moving by rail rather than truck can provide significant environmental and congestion benefits throughout the region.

- Additional improvements along the Martinez Corridor: The Martinez Subdivision is the primary mainline rail connection serving the Port of Oakland. Improvements to the Martinez Subdivision are programmed to receive $74 million in TCIF funds. However, there are significant additional needs along the corridor to benefit both freight trail and passenger rail, which use the same track through this corridor, as well as reduce the impact of freight movement on local communities. Projects might include additional mainline in bottleneck areas, sidings, crossover and train signal system improvements, grade separations, safety improvements at grade crossings, and improvements at the interface with passenger rail stations.

II. Implications of Local Land Use Decisions on the Goods Movement System

Introduction

The 2004 *Regional Goods Movement Study* found that goods movement industries and industrial businesses that rely on goods movement play an important role in the region's economy. However, development trends and regional growth forecasts indicate increased demand for goods movement services while at the same time a reduction in affordable, close-in location options for businesses. These trends pose a number of potential problems for the region, including increased land use conflicts, more truck miles and emissions, and higher costs of goods distribution. These high-level findings from the 2004 *Regional Goods Movement Study* stoked interest in further evaluating the goods movement land use issues in the region.

Industrial land supply for goods movement businesses and industries has historically concentrated along the major transportation corridors that ring the San Francisco Bay. Working with a consultant team, MTC identified two major corridors within the inner Bay Area critical for goods movement where land use challenges are key: 1) I-880 from Richmond to Fremont, and 2) US 101 from the San Francisco/San Mateo County line to Millbrae's south city limits. These corridors offer proximity to the business and population centers of the region and serve the major airports and seaports.

The Study was a two-phase effort to evaluate the relationship between local land use decisions and regional goods movement along these target corridors:

- Phase 1:
  - Identify key goods movement businesses and industries in the major corridors.
  - Map where industrial land uses suitable for goods movement businesses are located along the major corridors.
  - Identify those areas currently supporting goods movement activity that are "at risk" from land use policies or development proposals that allow or encourage transition to new uses.

- Phase 2:
  - Analyze the current and future supply and demand of goods movement businesses and the magnitude of that demand along the key regional corridors.
  - Assess the impacts of land use trends on truck VMT, congestion, air quality and costs of goods distribution.
  - Evaluate the impact of Smart Growth policies on goods movement.

The full Study can be found on the MTC website: http://www.mtc.ca.gov/planning/rgm/.

Phase 1

The purpose of Phase 1 was to identify and map existing industrial and other transportation-related land uses that currently provide location options for goods movement businesses and activities along the study corridors.

Land use mapping

Phase 1 first focused on comparing existing and planned land use along the study corridors. That comparison identified where future local land use plans are consistent with current existing industrial land uses, and those areas where land use plans and local policies allow new, higher-value uses in older, existing industrial areas. In these latter situations, existing industrial uses are at risk of development for new uses.

The results of these tasks include maps and tables that identify current land uses and the planned industrial land supply along the central Bay Area study corridors in terms of:

- locations reserved for the region's seaports and airports per regional agency plans;
- locations where local plans identify that industrial uses are to remain in the future;
- locations where local plans identify a mix of permitted business uses, including some types of light industrial uses as well as R&D, business park/campus, and mixed commercial/industrial uses that are typically higher-density and higher-value than general industrial uses;
- locations where local plans identify that commercial, residential, and mixed residential and commercial uses are permitted where industrial uses currently exist; and
- locations with major development projects, proposals, or plans for new, higher-value uses within or near to existing industrial areas of importance for goods movement.

The data and maps of current land uses and planned land uses were then compared to identify where and the extent to which the existing industrial land supply along the study corridors is at risk of converting to new uses in the future. In addition, the Priority Development Areas[4] (PDAs) were mapped to compare those areas local jurisdictions have identified as high-priority infill development areas to the existing goods movement-related land supply.

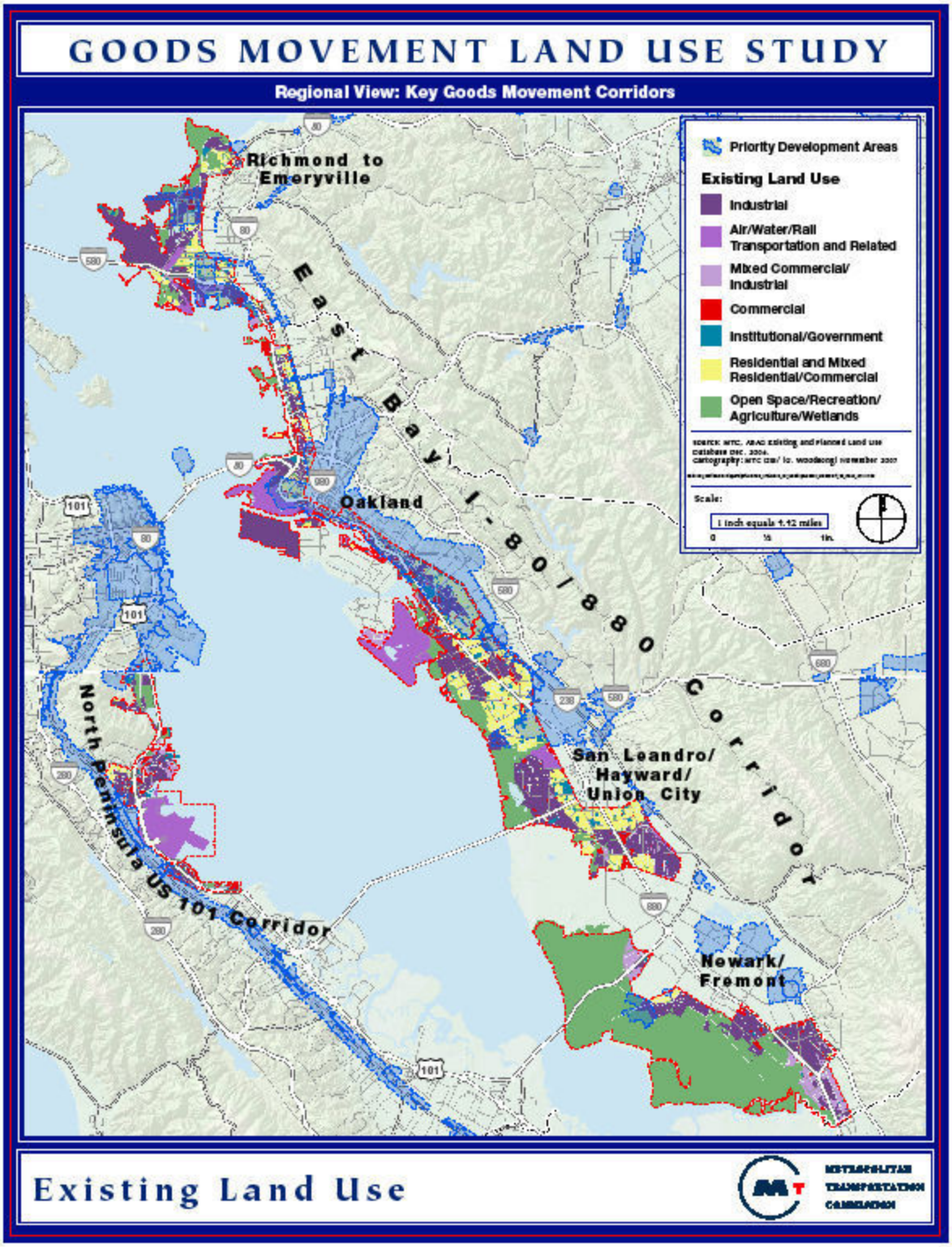
There was relatively little direct overlap of PDAs to the key industrial corridors. However, in Oakland and Richmond there were some minor exceptions. Although few PDAs directly overlap with key industrial corridors, some are located in close proximity or adjacent to these corridors, which may put added pressure on goods movement related businesses to relocate.

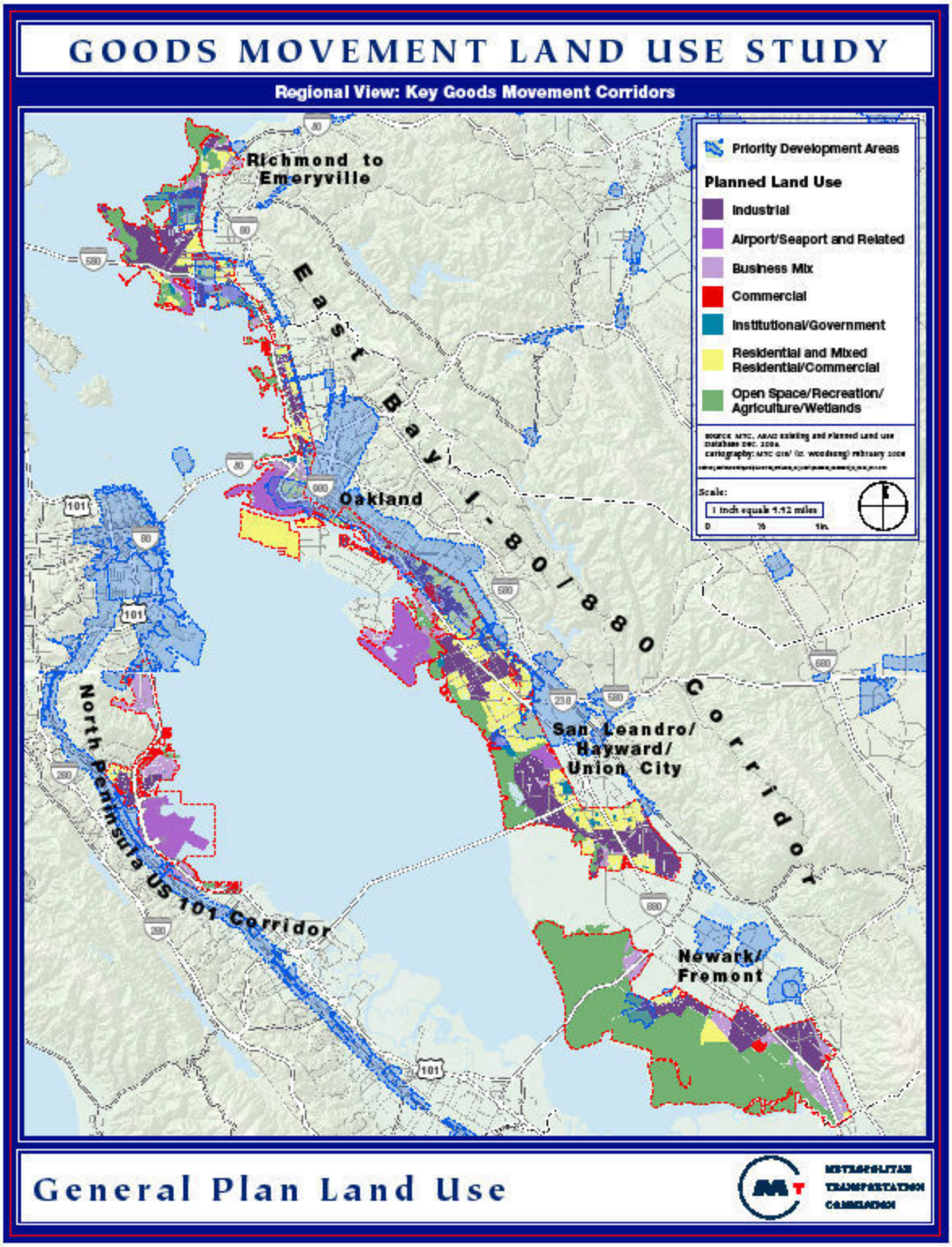
[4] Priority Development Areas (PDAs) are locally-identified, infill development opportunity areas within existing communities. The Association of Bay Area Governments' Executive Board adopted the first round of PDAs as Planned or Potential in 2007 and the second round in 2008. See: http://www.bayareavision.org/pda/.

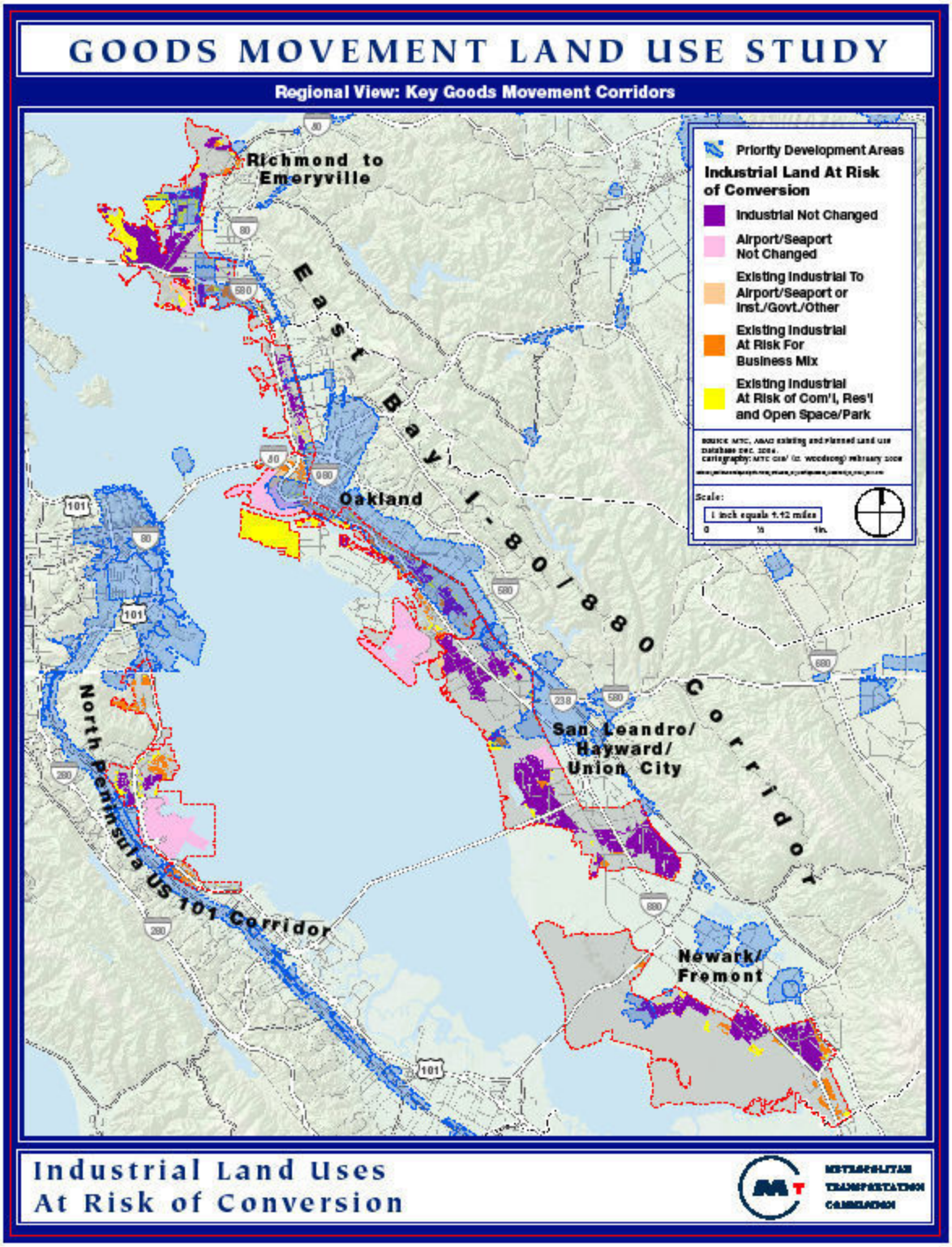
The comparisons are useful in identifying:

- where there is consistency, and where land use plans and policies support the continuation of goods movement and other industrial land uses along the study corridors; and

- where land use plans and policies allow/encourage transition from existing industrial land uses to higher-value, new uses in the future.


GOODS MOVEMENT LAND USE STUDY
Regional View: Key Goods Movement Corridors
Priority Development Areas
Existing Land Use
Industrial
Air/Water/Rail Transportation and Related
Mixed Commercial/ Industrial
Commercial
Institutional/Government
Residential and Mixed Residential/Commercial
Open Space/Recreation/ Agriculture/Wetlands
Scale:
1 inch equals 4.12 miles
Richmond to Emeryville
East Bay I-80/880 Corridor
Oakland
San Leandro/ Hayward/ Union City
Newark/ Fremont
North Peninsula US 101 Corridor
Existing Land Use
METROPOLITAN TRANSPORTATION COMMISSION


GOODS MOVEMENT LAND USE STUDY
Regional View: Key Goods Movement Corridors
Richmond to Emeryville
East Bay I-80/880 Corridor
Oakland
San Leandro/ Hayward/ Union City
Newark/ Fremont
North Peninsula US 101 Corridor
Priority Development Areas
Planned Land Use
Industrial
Airport/Seaport and Related
Business Mix
Commercial
Institutional/Government
Residential and Mixed Residential/Commercial
Open Space/Recreation/ Agriculture/Wetlands
Scale:
1 inch equals 4.12 miles
0
16
MTC
General Plan Land Use


GOODS MOVEMENT LAND USE STUDY
Regional View: Key Goods Movement Corridors
Richmond to Emeryville
East Bay I-80/880 Corridor
Oakland
San Leandro/ Hayward/ Union City
Newark/ Fremont
North Peninsula US 101 Corridor
Priority Development Areas
Industrial Land At Risk of Conversion
Industrial Not Changed
Airport/Seaport Not Changed
Existing Industrial To Airport/Seaport or Inst./Govt./Other
Existing Industrial At Risk For Business Mix
Existing Industrial At Risk of Com'l, Res'l and Open Space/Park
Scale:
1 inch equals 1.12 miles
Industrial Land Uses At Risk of Conversion

The analysis identifies about 19,000 acres of land that remains in industrial land use along the central study corridors in 2006. An additional 7,000 acres are devoted to the major airports, seaport, and rail yard facilities in the corridors. This land includes approximately 188 million sq ft of warehouse and manufacturing building space, much of it concentrated along the East Bay in Oakland, Hayward and San Leandro. Table 1 summarizes the planned land use changes along the corridors, according to local general plans.

Table 1: General Plan 2035 Land Uses for Existing Industrial Land
(% of existing industrial acres)

Location	Industrial Not Changed	Industrial At Risk to Conversion			
		Total at Risk	Business Mix*	Commercial, Residential, Open Space	Airport/Seaport or Institutional
East Bay I-80/880 Corridor	**62%**	**38%**	12%	23%	3%
Richmond to Emeryville	57%		8%	28%	7%
Oakland/Alameda	18%		23%	54%	5%
San Leandro/ Hayward/Union City	90%		4%	5%	1%
North Peninsula U.S. 101 Corridor	**30%**	**70%**	53%	16%	1%

*Includes Commercial, Light Industrial, Research & Development

Goods movement businesses and industries

Goods movement businesses located along the study corridors include a broad range of industrial businesses that supply materials, produce goods, transport and distribute goods, and provide other services that facilitate and support business activity and household consumption both in the central Bay Area and throughout the region. There are approximately 5,400 goods movement establishments located along the study corridors, supporting 177,200 jobs in 2006.

Tier 1: Goods Movement Dependent Industries.
Includes businesses/industries where goods movement is of high level importance to their operations and location decisions and which typically exhibit frequent freight vehicle trips inbound and outbound. Tier 1 includes the large majority, over 70 percent, of goods movement business activities along the study corridors.

Tier 2: Other Goods Movement Industries.
Includes businesses/industries that depend on goods movement, although it is of less importance and often secondary to other business purposes and/or location factors.

Table 2 identifies the businesses and employment located along the study corridors.

TABLE 2

SUMMARY OF GOODS MOVEMENT BUSINESSES/INDUSTRIES LOCATED ALONG CENTRAL CORRIDORS, 2006

Description	Estabs	Employment
Tier 1: Goods Movement Dependent Groups		
Air Carriers	49	6,378
Airports	37	3,610
Postal, Parcel, & Express	117	10,153
Maritime Industries	23	628
Seaports	14	476
Rail Carriers	4	153
Truck Carriers	228	5,793
Household Goods (HHG) Carriers	44	1,062
Warehousing	92	3,173
Truck Rental & Leasing	23	346
Transportation and Related	*631*	*31,772*
Local Manufacturing	382	10,283
Local/Regional Manufacturing	276	8,727
Regional Manufacturing	773	34,981
Manufacturing (excl. high tech mfg.)	*1,431*	*53,991*
Local Wholesale	287	5,733
Local/Regional Wholesale	1,138	20,312
Regional Wholesale	330	6,676
Wholesale Trade	*1,755*	*32,721*
Pipelines & Refineries	13	2,114
Fuel Dealers	5	70
Resource Extraction	7	99
Waste Management	55	3,469
Tier 1 Subtotal	***3,897***	***124,236***
Tier 2: Other Goods Movement Groups		
Construction	1,149	25,573
Computer & Electronics Mfg.	236	14,526
Pharmaceutical & Biotech Mfg.	24	10,396
High-Tech Manufacturing	*260*	*24,922*
Transport Support	15	471
Vehicle Towing	31	272
Transport / Vehicle Support	*46*	*743*
Equipment Rental	29	622
Utilities & Telecom	27	769
Agriculture & Husbandry	8	287
Tier 2 Subtotal	***1,519***	***52,916***
TOTAL	**5,416**	**177,152**

Source: California Employment Development Department; Metropolitan Transportation Commission; Hausrath Economics Group; The Tioga Group

Growth forecasts

Growth is forecast for all of the goods movement industry groups, and includes the emerging green industries that many local jurisdictions are focused on recruiting. The goods movement industry forecasts were "demand-driven forecasts" for the study corridors, unconstrained by land supply. Overall employment of central area goods movement industries is forecast to grow by approximately 59 percent between 2006 and 2035, at an annual average rate of 1.62 percent per year. Goods movement industry employment of 177,150 in 2006 is forecast to grow to 282,050 by 2035, resulting in an increase of 104,900 jobs. Table 3 summarizes the growth forecasts for the largest industry groups in the study corridors.

TABLE 3
SUMMARY OF FORECASTS FOR GOODS MOVEMENT INDUSTRIES WITH DEMAND FOR CENTRAL CORRIDOR LOCATIONS

	Employment		Growth	Percent	Avg. Ann.
	2006	2035	2006-2035	Growth	Growth Rate
Tier 1: Goods Movement Dependent Industries					
Transportation and Related	31,770	61,710	29,940	94%	2.32%
Manufacturing (excl. high-tech mfg)	54,000	64,360	10,360	19%	0.61%
Wholesale Trade	32,720	48,830	16,110	49%	1.39%
Other Industries (oil/gas, waste mgmt.)	5,750	9,630	3,880	75%	1.79%
Tier 2: Other Goods Movement Ind.					
Construction	25,570	41,420	15,850	62%	1.68%
High-Tech Manufacturing	24,920	52,830	27,910	112%	2.62%
Transport/Vehicle Support	740	1,260	520	70%	1.84%
Other Industries (equip. rental, utilities)	1,680	2,010	330	20%	0.62%
TOTAL	177,150	282,050	104,900	59%	1.62%

Phase 1 documented that while goods movement businesses and industries in the study corridors are forecast to grow over time, the land supply serving these businesses is forecast to decline.

Phase 2

Phase 2 focused on analyzing the land use and industry trends data compiled in the first phase of the study. This included identifying the current and future supply and demand of goods movement businesses and the magnitude of that demand along the key regional corridors to understand what goods movement activity is likely to be displaced. The study then assessed how displacement of goods movement businesses and industries could impact the region, focused primarily on the regional transportation network. Two 2035 land use scenarios were used for the comparison to bracket the extreme cases: a baseline scenario where the existing land supply remains, and a trends scenario where existing land use trends continue unabated.

Table 4: Alternative Scenarios for Industrial Land Supply Analysis

Trends Scenario	Future industrial land supply assuming existing land use policies continue ➢ Industrial land converted to new uses as shown in local General Plans ➢ Additional industrial land converted to new uses, similar to changes in proposed projects, General Plan updates, and regional efforts
Baseline Scenario	Future industrial land supply assumed at existing levels for analysis purposes ➢ Provides scenario for comparative purposes to assess impacts of trends as measured against existing supply ➢ More intensive use of corridor industrial land over time was assumed as part of the baseline scenario.

Key trends

- ***Central Area Industrial Land Supply Is Declining and Under Increasing Market Pressures.***

  Goods movement industries and their demand for central locations are growing. However, trends show declines in industrial land in the central areas and increasing pressures on the remaining industrial land supply. Assuming the continuation of existing land use policies, the demand for central area land for goods movement businesses will greatly exceed the industrial land supply in the future. The most likely future land use scenario under existing trends would accommodate just over half (57 percent) of the goods movement industry demand forecast for industrial land, resulting in less industrial activity than in 2006.

- ***Shortages of Industrial Land Result in the Outward Dispersion of Industrial Activities***

  Over time, large numbers of industrial goods movement businesses and jobs serving the central areas will have to locate outside the central corridors because of the shortages of industrial land under current land use trends and policies. The large majority, about 65 percent, are anticipated to locate in the inland San Joaquin Valley. Due to the region's geography and freeway system, the demand shifting outward will be heavily focused on industrial locations with access back to the central Bay Area markets they serve via I-580.

Impacts

The outward dispersion of industrial goods movement businesses while the demand they serve grows in the central Bay Area is forecast to create adverse ***transportation, environmental, and economic*** consequences. Many of these forecast impacts would arise from the effects of a more dispersed goods movement land use pattern on the travel patterns of truck trips to/from: (a) goods movement businesses shifted to outlying locations, and (b) the markets they serve in the central corridors and surrounding Bay Area. Impacts could include:

- 8,400 truck trips per day shifted, often to longer routes, including over 6,100 in I-580, adding to congestion, safety concerns, and roadway wear and tear;
- Up to an additional 347,900 truck vehicle miles traveled on regional highways;
- More truck emissions that degrade air quality, including a roughly 2 percent increase in PM 10 and PM 2.5 emissions;
- Displacement of about 87,000 good-paying blue/green collar goods movement-related jobs; and
- Higher transportation costs to businesses, resulting in higher costs of goods, estimated at $119 million/year (2008$).

Next Steps

MTC will continue to work with regional partners to develop and pursue specific strategies that could be pursued to address goods movement business displacement. These strategies might include:

- Working through FOCUS to ensure that PDAs do not impact economic development potential of adjacent goods movement businesses.
- Sharing information with other regional and local agencies, particularly partner regional agencies developing land use and air quality programs.
- Exploring further best practices in off-site mitigation and better business practices (e.g. delivery hours) to make goods movement businesses a better “neighbor”.

III. Additional Goods Movement Efforts

FEDERAL PROGRAM

Federal Transportation Bill

California's ports serve as the major entry point for goods entering the nation from the Pacific Rim. While the California and Bay Area economies benefit from goods movement activity, the infrastructure network and local air quality are under heavy strain trying to accommodate the freight volumes. Given current projections for growth in trade volumes, there are serious concerns regarding the transportation system's ability to handle that growth and the emissions that will result from the increased volumes.

A national freight policy and investment program is needed to help provide strategic guidance to the freight system, and to ensure the system can accommodate the needs of interstate commerce. MTC strongly supports the recommendation from the National Surface Transportation Policy and Revenue Study Commission to create a federal freight program in the next federal authorization.[5] A national freight program should include a dedicated funding source for goods movement projects, selected on a competitive basis, to implement highway, rail and port improvements that eliminate bottlenecks in the system and increase the efficiency of the goods movement system. Hand in hand with infrastructure improvements must be investments that mitigate the impact the goods movement system has on communities adjacent to major goods movement facilities, particularly the nation's ports and rail yards which service goods for both local and national consumption.

MTC's federal advocacy platform includes the recommendation that the Department of Transportation produce a National Freight Transportation Plan to focus future investments. Investments should be funded primarily through user fees, such as new container fees or custom duties, and focus on eliminating major choke points in the goods movement system. The federal program should recognize those states that have made significant investments of their own funds in nationally significant goods movement projects and support those investments by granting them priority for federal funding to bridge the gap between needs and local resources.

[5] Congress formed the National Surface Transportation Policy and Revenue Study Commission in 2005 as part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU). The Commission is comprised of 12 members, representing federal, state and local governments; metropolitan planning organizations (including MTC Executive Director Steve Heminger); transportation-related industries; and public interest organizations. The Commission examined the condition and future needs of the nation's surface transportation system, as well as short- and long-term funding alternatives. http://transportationfortomorrow.org/.

AIR QUALITY PROGRAMS

The Bay Area Air Quality Management District (BAAQMD) is undertaking a number of initiatives to reduce emissions related to goods movement. In addition to ongoing programs such as the Carl Moyer Program, the BAAQMD is also developing additional programs to reduce emissions from goods movement activities.[6]

Goods Movement Emission Reductions Program

The BAAQMD submitted a Goods Movement Emissions Reduction program for Transportation 2035 to be funded jointly by the BAAQMD, MTC and the Port of Oakland. MTC has committed $45 million over five years to advance this program as part of the Transportation 2035 Plan. The program is anticipated to include a major truck component, with goals of replacing and/or retrofitting up to 800 port and general goods movement trucks in the Bay Area. Trucks are major contributors of diesel particulate matter, as well as NOx and greenhouse gases in the Bay Area air basin. The impact is especially felt along the major goods movement corridors and facilities, such as the Port of Oakland, due to the high concentration of trucks, ships, locomotives and cargo handling equipment that service the Port and the surrounding area. On average, over 8,000 trucks per day travel through West Oakland, with almost 4,000 of these trucks servicing the Port of Oakland.

While overall emissions from diesel PM will decrease over time due to California Air Resources Board (CARB) truck regulations, there is a great need to accelerate this process as quickly as possible. This program would reduce diesel PM from trucks servicing the region, including the Port of Oakland, by replacing and/or retrofitting port and general goods movement trucks. The project will reduce particulate matter, NOx (a smog precursor) and greenhouse gas emissions and also promote climate protection. The truck replacement/retrofit project will help maintain and modernize the goods movement fleet while reducing the health risk in both the West Oakland and greater Bay Area community.

Community Air Risk Evaluation Program[7]

The goal of the Bay Area Air Quality Management District's Community Air Risk Evaluation (CARE) program is to identify locations with high concentrations of toxic emissions and populations who are sensitive to these emissions. The Air District uses the information to develop programs, incentives and regulations to reduce the emissions in these areas. The CARE program has identified western Alameda County, including the area around the Port of Oakland, as having high concentrations of toxics, sensitive populations and high hospitalization rates for childhood asthma. The main objectives of the program are to:

- Characterize and evaluate potential cancer and non-cancer health risks associated with exposure to TACs from both stationary and mobile sources throughout the Bay Area.
- Assess potential exposures to sensitive receptors including children, senior citizens, and people with respiratory illnesses.

[6] For more information on the Carl Moyer Program and other goods movement programs, see: http://www.baaqmd.gov/pln/grants_and_incentives/carl_moyer http://www.baaqmd.gov/pln/grants_and_incentives/gm

[7] Information on the CARE program is from the Bay Area Air Quality Management District website. For more information please see: http://www.baaqmd.gov/CARE/index.htm.

- Identify significant sources of TAC emissions and prioritize use of resources to reduce TACs in the most highly impacted areas (i.e., priority communities).
- Develop and implement mitigation measures - such as grants, guidelines, or regulations - to achieve cleaner air for the public and the environment, focusing initially on priority communities.

As part of the CARE program, the District partnered with the California Air Resources Board (CARB), the Port of Oakland, and the Union Pacific Railroad to estimate the health risks from diesel exhaust in West Oakland. Results of those efforts can be found on the CARB website: http://www.arb.ca.gov/ch/communities/ra/westoakland/westoakland.htm.

OTHER ONGOING EFFORTS

Container Fees

MTC supported efforts in 2008 for a statewide container fee to be implemented at the three major ports of Los Angeles, Long Beach and Oakland. Although potential legislation (Senate Bill 974) to require such a fee was vetoed in 2008, MTC will continue to work with the Port of Oakland and other stakeholders to advocate for user-based fees. The Port of Oakland is currently pursuing levying their own container fee, with revenues to fund both infrastructure and air quality programs.

West Coast Corridor Coalition

The West Coast Corridor Coalition (WCCC) is a coalition of member agencies from the states of Alaska, Washington, Oregon, and California. These four states work together to forge consensus strategies for the massive mobility challenges in the Corridor that transcend state and local borders. Active participants include the four state departments of transportation, ports, regional transportation planning agencies, and metropolitan planning organizations. The WCCC advocates collaborative solutions to transportation system challenges along the West Coast Corridor. The Coalition was created by dedicated transportation professionals who are willing to forge leadership solutions to Corridor challenges. The WCCC has developed a Corridor-wide Trade and Transportation Study that highlights the freight challenges in the Corridor. This study is the first step by Coalition members to inform decision makers about the importance of the Corridor as an unparalleled driver of economic growth and innovative technology.

IV. APPENDIX A

Northern California Trade Corridors Coalition
Trade Corridors Improvement Fund Program (TCIF)

1. Multi-agency letter to the California Transportation Commission
2. Northern California TCIF Trade Strategy
    a. Northern California Program of Projects
    b. Map of Northern California Program of Projects

January 17, 2008

Mr. John Barna
Executive Director
California Transportation Commission
1120 N Street, Room 2233, MS-52
Sacramento, CA 95814-5605

Dear Mr. Barna,

As you know, many of the Regional Transportation Planning Agencies (RTPAs) in Northern California have been working together to develop a Northern California Trade Corridors Strategy. Led by the Metropolitan Transportation Commission, Sacramento Area Council of Governments (SACOG), and many of the Councils of Governments in the Central Valley, the coalition is now supported by 23 of the state's 58 counties, bridging the north-south and urban-rural divide.

The regional agencies in Northern California have worked together to develop a strategic vision, coupled with a specific program of projects, to address the growing needs of goods movement in Northern California. Trade primarily occurs along two major trade corridors in the North: the Central Corridor and the Altamont Corridor, which taken together connect the Sacramento, Bay Area, and Central Valley regions with one another and with major national and international trade routes. The locus of this trade activity is the Port of Oakland, the nation's 4th busiest container seaport and a critical export port for the state. Because of the nature of goods movement and the interregional corridors being discussed, it is critical to work collaboratively across jurisdictional boundaries. This foundation will also serve to advocate for Northern California's needs beyond the Infrastructure Bond, extending particularly to the next round of federal transportation reauthorization.

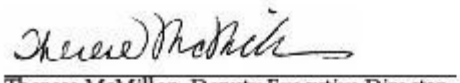
We believe that the comprehensive draft program of projects we've developed would greatly improve goods movement throughout Northern California and indeed the entire state, creating a more efficient and resilient transportation system and supporting the state and regional economies. The partnership leader in the Bay Area, Sacramento and Central Valley have formed for TCIF is unprecedented. By working together to develop a program of projects that will improve goods movement along the major Northern California trade corridors, the regions have taken critically important steps to acknowledge the interconnectedness of our goods movement systems.

The Donner Summit and Tehachapi Pass Improvements are gateway projects of statewide significance located within Northern California. We included these projects in our trade strategy with the understanding that the State will take a lead role in negotiating with the railroads the public benefits associated with the final Projects, with input from key regional partners.

Given the diversity of interests in Northern California, and the State's concerns that those interests are effectively marshaled in this important effort, we want to assure you of our collective commitment to deliver a timely and responsive Northern California Trade Program. We look forward to working with the California Transportation Commission and our other state partners on TCIF Program development and delivery.

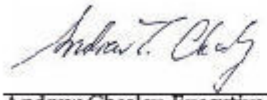
Please see the attached signatures.

Signed by:

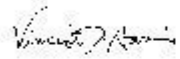


Therese McMillan, Deputy Executive Director
MTC

Michael McKeever, Executive Director
Sacramento Area Council of Governments



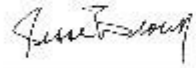
Andrew Chesley, Executive Director
San Joaquin Council of Governments



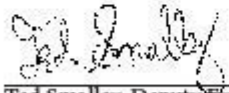
Vincent Harris, Executive Director
Stanislaus Council of Governments

Barbara Goodwin, Executive Director
Council of Presno County Governments

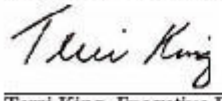
Ronald E. Brummett, Executive Director
Kern Council of Governments



Jesse Brown, Executive Director
Merced County Association of Governments



Ted Smalley, Deputy Executive Director
Tulare County Association of Governments



Terri King, Executive Director
Kings County Association of Governments

Patricia Taylor, Executive Director
Madera County Transportation Commission

NORTHERN CALIFORNIA TRADE STRATEGY

OVERVIEW

Goods movement has become an increasingly important issue in Northern California. As international trade continues to grow, all of California's trade gateways are feeling the burden. High volumes of international cargo, as well as goods needed to serve the growing population and support the local and state economies are placing a strain on the overburdened and often outdated infrastructure. The impact can be seen not only in delays for cargo, but congestion on the region's highways, rail lines, and local roads. In addition, high levels of air pollution, safety concerns, local congestion and noise have disproportionately impacted those communities located near goods movement infrastructure.

The goods movement transportation system is a complex network including ports, rail facilities and rail lines, and highway and roadway infrastructure, and is closely tied to state, national and international transportation systems. As such, it is critical to think of goods movement in terms that extend beyond our typical geographic and political boundaries.

In Northern California, critical goods movement corridors connect the Bay Area, Sacramento and Central Valley regions. This was reflected in the State's Goods Movement Action Plan (GMAP), which showed the Bay Area and Central Valley Regions overlapping significantly. While the Bay Area, Sacramento and Central Valley all have very distinct characteristics, the regions are inextricably linked in terms of goods movement.

Trade primarily occurs along two major trade corridors in Northern California: the Central Corridor and the Altamont Corridor, which taken together connect the major regions with one another and with critical national and international trade routes. The locus of this trade activity is the Port of Oakland, the nation's fourth busiest container seaport and a critical export port for the state.

- **The Central Corridor** is a highway and rail corridor running from the Port of Oakland roughly along I-80 to Sacramento and across the Sierra Nevada Mountains on to Chicago, connecting the Bay Area and Sacramento regions with one another and the major transcontinental highway and rail routes heading out of Northern California.

- **The Altamont Corridor,** which runs from the Port of Oakland, along I-880/238/580 to the Central Valley, connects with I-5 and SR 99 at the northern end of San Joaquin Valley and eventually with the southern transcontinental rail route at the southern end of the Central Valley. This corridor connects the State's agriculture community and the Port of Oakland and also serves the growing population of the Central Valley.

Investment in these corridors together focuses on the dual goods movement concerns of: (1) the economic interconnections of the Sacramento and Central Valley regions with the Bay Area through interregional goods distribution corridors; and (2) ensuring the future viability and growth of the Port of Oakland as a trade gateway for both imports and exports. Recognizing the importance of these two factors, regional transportation agencies in Northern California have formed a partnership to develop a comprehensive program of rail and highway projects along these two trade corridors. This integrated program is designed to meet current and future requirements to move both people and goods throughout the state and the nation quickly, reliably and safely, with less highway congestion and pollution.

TCIF Program

The regional agencies have come to consensus around a list of priority goods movement investments in Northern California to be nominated for the Trade Corridors Improvement Fund (TCIF). The list is multimodal— addressing a network of rail, highway and maritime improvements— and multiregional, focusing on the Central and Altamont Corridors.[8] The program consists of targeted, strategic investments in rail and highway infrastructure providing access to the Port of Oakland, and networking with other ports

[8] See Attachment A and B for a complete list and map of projects.

serving Northern California trade corridors, to provide a balanced, multi-modal approach to goods movement. Because the long-term needs in Northern California, and throughout the state, far outweigh the current funding available, the regional agencies took a phased approach to developing the list of priority goods movement projects for Northern California. The first Tier, totaling approximately $960 million, reflects the highest priority projects for each region. Tier 2, totaling $470 million, is made up of those projects that play an important role in goods movement in the corridors but that we do not believe should be recommended for the TCIF program. The more than $2 billion provided by the bond is simply the beginning of a long-term focus on goods movement. With federal reauthorization on the horizon, and a possible revenue stream for trade projects coming from the proposed container fee being considered by the Legislature and the major ports, those projects that do not receive funding from TCIF will continue to be developed and pursued. All projects listed in Tier 1 and submitted for the TCIF program can be in construction by December 31, 2013, and have the required match secured.

CORRIDORS

PORT OF OAKLAND

In Northern California, the Port of Oakland serves as a major anchor of goods movement activity, handling 99% of the waterborne goods moving through Northern California and supporting the regional population, Northern California businesses and the State's critical agricultural community. The Port of Oakland is the fourth largest container port in the country, handling almost 2.4 million twenty-foot equivalent units (TEU) in 2006. Unique among California ports, container volume at Oakland is split almost evenly between import and export movements. Oakland is the primary California gateway for Central Valley agricultural and Northern California wine country exports, and for both import and export goods coming into distribution centers and warehouses located in the northern San Joaquin Valley. Maritime activity at the Port's 20 deepwater berths and nearly 770 acres of marine terminals generates over 28,500 jobs, $3.7 billion annually for the regional economy, and over $200 million in local and state tax revenue.

International trade volumes continue to grow on the west coast. The demand that is driving the cargo growth in the Port comes from several sources: expanding urban markets reaching south toward Gilroy and east into the Central Valley; and development of inland transload warehouse centers as far away as Bakersfield that will rely on the Port as an international gateway. The Port anticipates continuing to grow at four to five percent annually, reaching between five and six million TEUs around 2020- 2025.

However, west coast port capacity and infrastructure development have not kept pace with demand. Increased congestion at the San Pedro Bay ports and along Southern California intermodal routes have led the railroads and shipping industry to evaluate multiple routing options. They are increasingly recognizing the Port of Oakland as a desirable strategic load center for U.S. intermodal cargo. Shippers can achieve logistics benefits by combining cargo destined for local consumers with intermodal cargo headed to and from the rest of the nation.

The Port has almost completed deepening its channels to accommodate newer, larger vessels, and has expanded its marine terminals in order to create more capacity within the Port. The Port is ready to accept more business and has room to grow as the volume of international trade increases over the next several years. To realize this growth potential, however, the Port needs to increase the capacity of the freight rail system that connects the Port to the rest of California and the nation.

Port of Oakland TCIF Anchor Projects

Both the Central and the Altamont Corridors are anchored at the Port of Oakland. In order to accommodate the forecast growth anticipated at the Port, key rail and road infrastructure improvements are needed to provide access to and from the Port of Oakland. The Port's highest priority for ensuring its future economic health is to expand the capacity of the main rail lines serving the Port and points east. There are three major projects located at or near the Port of Oakland that are critical projects for both the Central and Altamont Corridors: expanded intermodal capacity at the Outer Harbor Intermodal Terminals (OHIT), the 7th Street Grade Separation, and Martinez Subdivision Improvements.

- OHIT: OHIT is the extension of two intermodal rail yards, which will be located on the former Oakland Army Base and provide significant goods movement capacity at the Port. The project will allow the railroads to load and unload containers more efficiently, and will support the Port of Oakland's intermodal throughput goal. OHIT will relieve congestion on rail main lines adjacent to the Port and will provide air quality benefits for the region and State by providing the capability to move more goods by rail rather than by trucks.
- 7th Street Grade Separation: The project will relieve a key highway and rail bottleneck at a major gateway into the Port of Oakland. The grade separation will separate truck traffic on 7th Street from increased rail movements between OHIT and the rail mainline to the north of 7th Street and the existing rail facilities to the south. This will eliminate conflicts between trucks and trains at a major intersection adjacent to OHIT and a major entrance to the Port.
- Martinez Subdivision Improvements: The Martinez Subdivision is the primary rail line serving the Port of Oakland. Running north from the Port and connecting with the major north-south and east-west rail routes in the State, Martinez is owned by Union Pacific (UP), and used by UP, Burlington Northern Santa Fe (BNSF) and the Capitol Corridor, San Joaquin and Amtrak services. Improvements here will add much needed capacity and operational flexibility to the mainline, improving the velocity, throughput and reliability of both freight and passenger service on this congested rail segment.
- The 7th Street and OHIT projects together create the capacity to move more trains with fewer delays into and out of Oakland, reducing the conflicts between trucks and trains and making rail service more efficient. The projects also create operational synergies with the Martinez Subdivision Improvements, which as proposed will take place directly north of the OHIT facility as goods exit the Port.

CENTRAL CORRIDOR

The Central Corridor is an integrated rail and highway corridor that stretches from Oakland to Chicago, providing a critical link between Northern California and the rest of the nation. It crosses through eight counties, including Alameda, Contra Costa, Solano, Sacramento, Yolo, Placer, Nevada, and Sierra Counties. The corridor is comprised of highway and rail facilities. I-80 is the primary east-west highway connector between the Bay Area and Sacramento. I-80 extends northeast from the Bay Area approximately 200 miles through Sacramento and over Donner Summit, where it crosses into the State of Nevada. This corridor is the only major freeway connection between Northern California and points east.

Rail service along the Central Corridor is provided primarily by UP. This rail line extends from the UP Railport and the Port of Oakland's Oakland International Gateway (OIG) intermodal yard, 100 miles east to the UP Yard in Roseville. The Roseville Yard is UP's major carload classification yard in Northern California, receiving daily trains from Los Angeles, Oakland, the Central Valley, Chicago, Kansas City and the Pacific Northwest. East-west movements continue along the UP line along I-80 over Donner Summit and points east, and north-south movements connect with UP's north-south line between Seattle and Los Angeles along I-5. BNSF also runs a limited number of trains along this same infrastructure under a trackage rights agreement.

In addition, the Central Corridor is a major passenger rail route, with a weekday average of 44 passenger trains traveling along the corridor. The Capitol Corridor service runs 32 trains per day between Sacramento and the Bay Area, and Amtrak and the San Joaquins run an additional 12 per day. Due to the capacity issues, Capitol Corridor trains are often delayed, sometimes in excess of two hours, between Sacramento and Oakland. This leads to a fairly high degree of unreliability for rail passengers and reduces the attractiveness of the service to commuters.

The rail system along this Corridor generally does not have excess capacity. There are several sections with heavier rail activity than is optimal, including the UP mainline north of Oakland, the Martinez Subdivision, used by both freight and passenger trains. There are three major rail choke points along the Central Corridor where capacity issues or operational constraints limit the free flow of freight. These

choke points impede the amount of freight that can be brought through the Port of Oakland and result in congestion along the entire subdivision, which runs through multiple residential and commercial areas in the Bay Area and Sacramento. In addition, there is significant interest in extending passenger rail service east of Sacramento, which must be negotiated with UP and is a top priority for the Sacramento area. The primary rail choke points are:

- **The Martinez Subdivision:** Currently, this mainline segment is used by Amtrak, UP, the Capitol Corridor, and BNSF. The conflict between passenger and freight trains is limiting the capacity to move freight trains away from the Port. In addition, there is very limited capacity to store trains prior to departure or after arrival.
- **Donner Summit:** The ability to move freight from the Port of Oakland is limited by the tunnels over Donner Summit, which do not provide sufficient clearance for double-stacked container cars, as well as a critical section of the line where the track is reduced from two tracks to one. The Donner Summit is a key gateway for the state of California, providing access to the rest of the nation via the transcontinental rail line.
- **Sacramento Rail Depot:** The current track configuration requires passenger trains to stop on the mainline, requiring freight trains to wait for loading and unloading of passengers. This situation also creates a safety problem with passengers having to cross live tracks and results in a speed limit of 20 mph on this section.

The forecasts for the Central Corridor call for a considerable increase in the tonnage and value of commodities carried by truck and by rail. By 2016, the total of the regional, intrastate, and interstate (including Mexico and Canada) goods movement along the corridor is projected to grow to 90 million tons annually, and be valued at $101 billion. By 2026, the total goods movement along the corridor is projected to grow to 112 million tons annually, with a total value of $126 billion. The cumulative growth in tonnage for the Corridor is shown for trucks in Figure 1A and for rail in Figure 1B, which also clearly show how trucks provide the majority of the intrastate moves, while rail provides primarily interstate freight movements.

Figure 1A Central Corridor Truck Tonnage Growth, 2006 to 2025

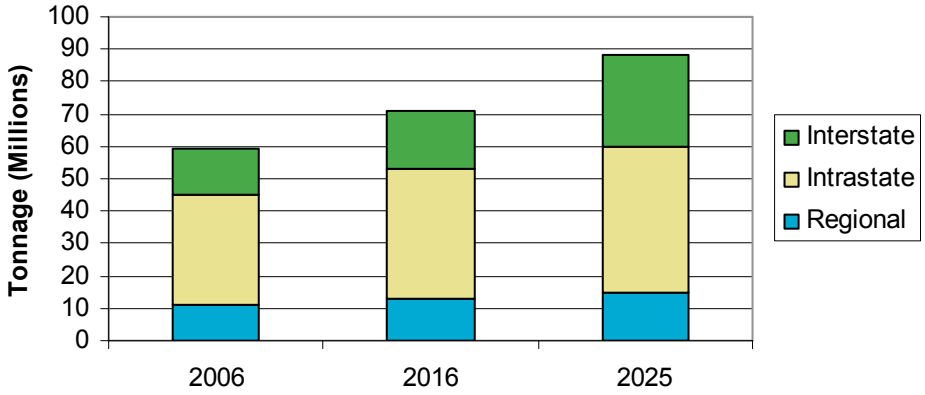
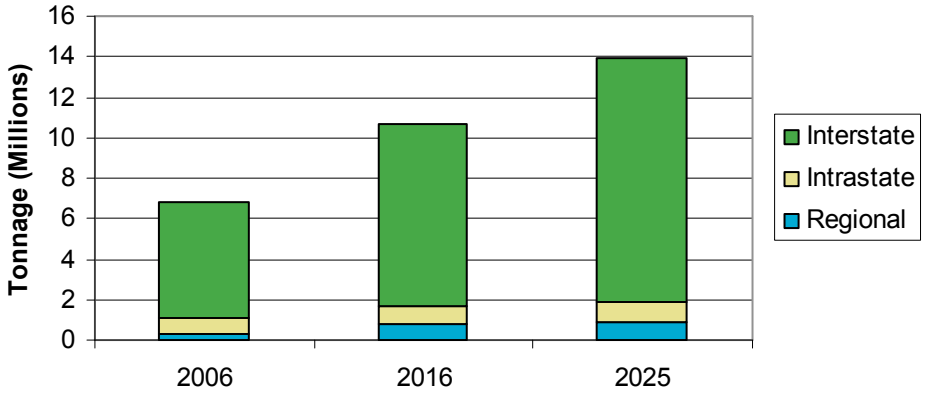


Figure 1B Central Corridor Rail Tonnage Growth 2006-2025



This growth can be estimated in terms of increased truck and rail flow along the corridor. For the Central Corridor, a rough calculation of tonnage per truck yields a measurement of 28,000 pounds per truck (roughly 14 tons per truck). By 2016, the total truck tonnage is projected to grow to 71 million tons. This will add an estimated 5 million additional trucks to the road yearly, or an average of 15,315 each day. By 2026, the truck tonnage is projected to grow to 88 million tons, or an additional 6.3 million trucks per year or 19,062 trucks per day. Rail freight is projected to grow at a slightly slower rate. Nevertheless, the tonnage carried by rail is expected to grow to 11 million tons by 2016, and 14 million tons by 2026. Strategic investments in the rail network may encourage more goods to move by rail rather than by truck in the future.

Highway Bottlenecks

I-80 is a notorious highway bottleneck in the Bay Area, with two of the most congested segments in the region. This is also the case in the Sacramento metropolitan area, where it serves as the major commute route as well as a major goods movement corridor for both regional and interregional freight. Bottlenecks occur at the I-80/680/Hwy 12 interchange, as well as along I-80 in Alameda County. In the Sacramento area, major congestion occurs during commute hours, as well as on weekends and holidays with recreational travel to the Sierra. While significant work is underway to improve I-80, there are limited opportunities along the geographically constrained corridor. Investing in the rail network in the corridor, as well as strategic investments in the highway corridor, can potentially reduce the volume of trucks on the highway network.

Central Corridor TCIF Projects

Projects recommended for TCIF funding on the multi-modal Central Corridor include a mix of highway and rail projects, as well as one dredging project. Together, the projects expand capacity in the corridor and remove key highway and rail bottlenecks.

- Donner Summit Improvements: Targeted investments over the Donner Summit will allow for double-stacked, longer trains to traverse Donner Summit, rather than having to travel the circuitous route over Feather River Canyon which double-stacked trains originating at the Port of Oakland use today. These improvements will improve the capacity, velocity and throughput of the Central Corridor, cutting nearly a day off the travel time for a train heading to or from the Bay Area from points east.
- Sacramento Rail Depot Realignment: Realignment of the mainlines through the Sacramento Valley station will allow for a 50 percent increase in velocity of freight trains through the station. Current track configurations create congestion and safety issues. The realignment will provide for the separation of all passenger tracks/platforms from freight train operation as well as grade-separated access to the passenger platforms without crossing any live tracks. Realignment of the main tracks will include replacement of the existing passenger boarding platforms, platform access, and other related facilities.

- Reconstruction of the Cordelia Truck Scales. The truck scales were constructed in 1958 and are seriously undersized and unable to process existing truck volumes, much less projected volumes. Inefficiencies at the current facility frequently result in trucks queuing on to the interstate, creating dangerous weaving conditions and forcing the scales to periodically close. New, relocated truck scales will improve throughput and safety in the area for both trucks and passenger vehicles.
- Port of Sacramento Dredging: Dredging the remaining 35 miles of the Sacramento Ship Channel from 30 to 35 feet will result in a 40 percent increase in the potential berthing capacity for the Port of Sacramento. This will allow larger and more modern vessels to serve the Port, and thus would probably lead to a reduction in truck trips between the Bay Area and the Sacramento region.

When considering the long-term future of the Central Corridor, additional improvements to the rail, highway and waterway network will be needed. Sustained infrastructure investment will be needed along the rail mainline from the Bay Area to Sacramento. Ranging from track upgrades to providing additional sidings and ties to upgrading drainage and replacing worn track, ongoing investment in the corridor will improve the operational efficiency of the rail corridor. However, these improvements are not as high a priority as those recommended for TCIF funding.

There are also a number of highway projects in development along the corridor, including a new interchange at I-80/680/12, which is a high priority for Solano County and will complement the Cordelia Truck scales project. In addition, improvements to I-80 in the Sacramento region include extending the existing HOV lanes from Watt Avenue west to I-5 and from the Sacramento/Placer County line west to SR 65.

Barge service is also being contemplated between the Port of Oakland and the Port of Sacramento (as well as the Port of Stockton). However, given the current projected cost structure of the service and the infrastructure investment needed upfront, barge service is considered a long-term strategy for the corridor.

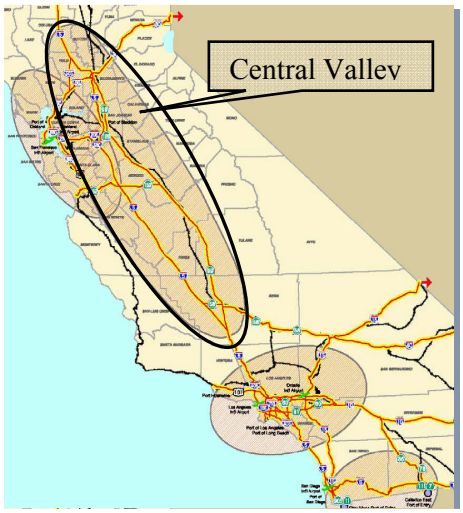
ALTAMONT CORRIDOR

The Altamont Corridor is an interregional corridor serviced by highway and rail infrastructure. Originating in the Bay Area along I-880, SR 238 and I-580, the Altamont Corridor traverses east through Alameda and San Joaquin Counties on I-205 before reaching I-5 approximately 65 miles east of Oakland. This is a very high volume truck traffic corridor linking the Central Valley distribution centers and the Bay Area. It is the primary link for agriculture products traveling throughout the Central Valley and from the Central Valley to the Port of Oakland for export to the rest of the world. The Altamont Corridor continues south through the Central Valley along I-5 and SR 99, providing a critical north-south link through the heart of California. According to the Federal Highway Administration, the Altamont Corridor highway system will more than double in truck volume activity between 1998 and 2020.

The Central Valley

The Central Valley of California and its relationship with the Altamont Corridor connecting the Central Valley to the Bay Area is logistically one of the most important trade corridor combinations supporting the movement of goods on a local, state, national, and international level. The Central Valley includes both the Sacramento region and the San Joaquin Valley, and was itself a major region identified in the State's Goods Movement Action Plan (GMAP). The San Joaquin Valley portion of the Central Valley includes the eight counties of Kern, Kings, Tulare, Fresno, Madera, Merced, Stanislaus, and San Joaquin.[9] Geographically, it connects the two largest metropolitan areas in California, San Francisco and Los Angeles, as well as the Greater Sacramento region.

[9] See *San Joaquin Valley Goods Movement Action Plan*, November 30, 2007



Eight of the ten fastest growing counties in California are located in the Central Valley. The counties of Merced, Stanislaus, and to a large part San Joaquin, are bedroom communities for the Bay Area, with over 20 percent of residents from San Joaquin County commuting daily over the Altamont Trade Corridor.

As an air basin, the San Joaquin Valley is designated by the Environmental Protection Agency as a non-attainment area. Residents rank among the highest 5% in the nation for pollution-related health risks. Significantly contributing to the air quality condition is the amount of pollution emitted from diesel trucks. In fact, according to the California Air Resource Board, the San Joaquin Valley has the highest heavy-duty diesel truck miles per day in the state.

The major goods movement routes are I-5 (primary north-south route for freight movement along the west coast from Canada to Mexico), SR 99 (primary inland route through California connecting major cities in the San Joaquin Valley) and the Class I railroad lines owned by UP and BNSF. East to west transportation facilities are less numerous but critical to the interregional transportation network of the west coast and the western United States. The Port of Stockton in San Joaquin County is located on the deepwater ship channel 75 nautical miles due east of the Golden Gate Bridge. It is the largest inland port on the west coast, the largest tier II port in California and trades with over 50 nations specializing in bulk commodities. The Port's maritime volume is expected to double in the next ten years.

Busiest Trucking Corridors

Region	Heavy-duty diesel truck miles per day	Smog violations in 2006
San Joaquin Valley	11.6 million	86
South Coast	9.6 million	85
San Francisco	2.9 million	12
San Diego	1.5 million	14

The southernmost Central Valley county of Kern is the gateway to the Altamont Trade Corridor. This corridor provides north/south rail access between the Bay Area, the Central Valley, and Southern California and is a primary access route to the southern transcontinental rail network. In the north, San Joaquin County is considered an interregional goods movement hinge point for California due to its close relationship with the Bay Area and the Greater Sacramento Area. The majority of interregional goods movement from the Central Valley heads west over the Altamont Pass on I-580 into the Bay Area on I-580, I-238 and I-880, or continues north through Sacramento or to the east over the Donner Pass/I-80.

Two different rail lines provide rail service along the Altamont Corridor. The primary line is the BNSF mainline, which begins at the Port of Oakland's BNSF OIG terminal, travels north along the UP owned Martinez Subdivision, before traveling roughly 65 miles east, where it connects to the BNSF Stockton Intermodal Facility. BNSF trains then head south through the Central Valley and over the Tehachapi Mountains, where they connect with the southern transcontinental rail lines. The second rail line is the UP-owned Niles Rail Corridor, which starts at the Port of Oakland traveling south, and heads east over Altamont Pass. At Niles, the line joins the UP line from San Jose, and continues to Stockton. The portion between Stockton and San Jose is used by the Altamont Commuter Express (ACE).

The forecasts for the Altamont Corridor call for a considerable increase in commodity flows. By 2016, the total of the regional, intrastate, and interstate (including Mexico and Canada) goods movement along the Altamont Corridor is projected to grow to 250 million tons annually, and be valued at $183 billion. By 2026, the total goods movement along the Altamont Corridor is projected to grow to 292 million tons

annually, with a total value of $214 billion. The cumulative growth in tonnage for the Corridor is shown for trucks in Figure 2A and for rail in Figure 2B. These graphs also clearly show how trucks provide the majority of the intrastate moves, while rail provides primarily interstate freight movements.

Figure 2A Altamont Corridor Truck Tonnage Growth, 2006 to 2025

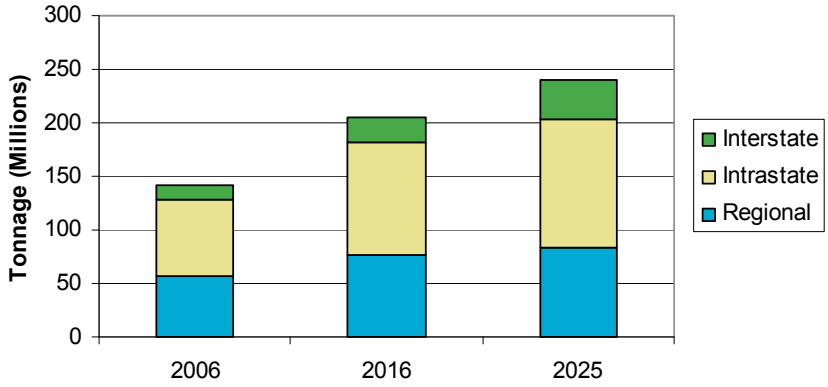
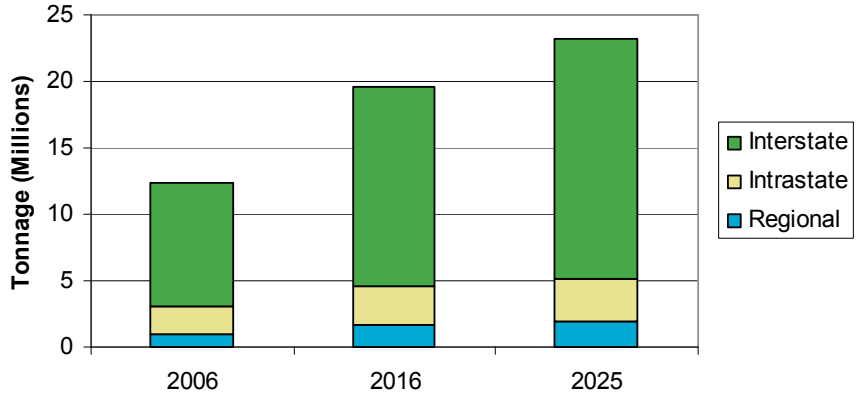


Figure 2B Altamont Corridor Rail Tonnage Growth, 2006 to 2025



This growth can be estimated in terms of increased truck and rail traffic along the corridor. For the Altamont Corridor, a rough calculation of tonnage per truck yields a measurement of 14 tons per truck. By 2016, the truck tonnage is projected to grow to 204 million tons. This will add an estimated 14.5 million additional trucks to the road yearly, or an average of nearly 44,000 trucks each day. By 2026, the truck tonnage is projected to grow to 239 million tons, or an additional 17 million trucks per year or 52,000 trucks per day.

Rail Bottlenecks

There are several choke points along the Altamont Corridor where the free flow of freight is limited by capacity issues and operational constraints. These choke points are of high interest to the Port of Oakland, because they impede the connection between the Port and the rest of California, specifically the Central Valley distribution centers and agricultural exporters. There is not adequate rail connectivity between the Port and the inland Central Valley. Therefore, most of this freight is carried by truck on the Altamont Corridor, adding to congestion and air quality concerns along the corridor. A major rail bottleneck is located at the Niles Junction near Fremont due to conflicts between the eight daily ACE trains with the UP freight traffic. Another major rail bottleneck exists at the Tehachapi Mountains, where difficult terrain and high volumes result in slow moving trains, frequent mechanical problems and

operational inefficiencies. This is a key state gateway providing goods movement connections within California as well as to the major national markets. Without investment over the Tehachapi Mountains, the rail network will reach capacity by 2009.

Highway Bottlenecks

Critical highway bottlenecks occur in multiple locations along the Altamont Corridor. In 2005, the I-580 corridor daily traffic volume was 211,000 vehicles per day with trucks accounting for 12 percent of the total traffic. This I-880/238/580 route has the highest truck volumes of any location in the Bay Area and serves as the major interregional corridor between the Port of Oakland and I-5 in the Central Valley. It also serves the Tri-Valley area including the cities of Pleasanton, Dublin, and Livermore. Two segments along the corridor have been in the top five most congested freeway locations in the Bay Area since 2002, experiencing three-hour long weekday and morning peak period congestion in the westbound direction and four-hour long weekday afternoon peak period congestion in the eastbound direction. In particular, the geographically challenging Altamont Pass is a major chokepoint for both passenger vehicles and freight as trucks struggle to climb the grade.

Immediately to the east, I-205 experiences chronic congestion with peak periods lasting three plus hours and regularly recurring congestion on weekends. In addition, SR 120 and SR 99 also operate above their peak period capacity. The primary highway access linking I-5 and SR 99 to the Port of Stockton is the Crosstown Freeway (SR 4). This facility stub ends as it approaches the Port, forcing trucks onto the Boggs Track residential community surface streets in order to access the Port.

Altamont Corridor TCIF Projects

Projects recommended for TCIF funding on the multi-modal Altamont Corridor include a mix of highway and rail projects, as well as one dredging project. The multi-modal approach involves shifting truck freight to rail and to water, improving rail service from the Central Valley to the Port of Oakland, improving truck access to critical facilities, and improving goods movement capacity on the rail and water networks.

- SR 4 (Crosstown Freeway) Extension into the Port of Stockton: The project will expedite truck movement to-and-from the Port of Stockton by addressing the inadequate connectivity between the Port and I-5 and SR-4. The project will improve regional east-west circulation in central Stockton and reduce traffic and environmental impacts to the adjacent Boggs Tract neighborhood by providing improved accessibility to the Port to divert truck traffic away from local streets.

- I-580 East Bound Truck Climbing Lane: A new truck climbing lane over the Altamont Pass will provide congestion relief at a major bottleneck for goods traveling between the Bay Area and the Central Valley. The addition of the truck-climbing lane will improve freeway safety and operations and relieve traffic congestion and delay by separating slow-moving traffic from existing mixed-flow lanes and reducing weaving. The project will also reduce vehicular emissions by allowing traffic speeds to increase and remain stable.

- I-880 Improvements at 23rd and 29th Avenues: I-880 is the major truck route in the Bay Area, serving as the primary truck route to and from the Port of Oakland and providing access to numerous other intermodal facilities including the Oakland International Airport and U.S. Mail and UPS distribution centers. I-880 has the highest volume of trucks in the Bay Area, and also suffers from major congestion and an accident rate five times the State average. This project proposes to improve a daily recurring congestion point by constructing operational and safety improvements on I-880 at 23rd and 29th Avenues.

- San Francisco Bay to Port of Stockton Channel Dredging: Dredging the channel to 40 feet will significantly improve the goods movement capacity throughout the channel. The Port of Stockton and Contra Costa County are local sponsors of this federally-authorized deepening project. Sections of the channel from San Francisco Bay to the Port will be deepened, increasing capacity of the channel to accommodate a greater variety of vessel traffic and increased goods movement, benefiting 5 oil refineries and the Ports of Stockton and Sacramento, and providing relief for the congested highways.

- Tehachapi Pass Improvements: The Tehachapi Mountain area is a critical bottleneck on the Altamont's rail corridor. Targeted improvements to the line can provide much-needed capacity, improve corridor efficiency and reliability and reduce idling. The improvements include extended sidings, limited double tracking, and removal of tunnels for a very treacherous mountain area. These improvements will have a significant ripple effect throughout the entire BNSF and UP system, with direct benefits to the greater Bay Area-Central Valley.

- Altamont Pass Short Haul Rail Corridor Development: This project entails the purchase and improved alignment of the UP rail corridor from the City of Stockton in San Joaquin County, over the Altamont Pass, and to Niles Junction in the Bay Area to establish a short haul rail service. Ownership by the San Joaquin Regional Rail Commission (SJRRC) is pivotal to the start-up and development of short haul rail services in order to provide throughput and reliability to handle increased volumes of trade movement and lessen impacts to an already saturated highway network.

- Short Haul Rail—Crows Landing: This "inland Port" complex will provide logistics, distribution and cargo support services to Central Valley importers and exporters of goods through the Port of Oakland. The project will provide goods movement jobs to the Central Valley and provide inland port access, reducing truck trips over the heavily congested Altamont Pass. It will also improve air quality and reduce greenhouse gas emissions.

- Short Haul Rail—Shafter: This project will establish a dedicated, reliable rail shuttle connecting the Port of Oakland with the City of Shafter at the southern end of the Central Valley. It will improve goods movement access and flow to Southern California and through the Central Valley by better utilizing existing goods movement infrastructure. The new service will reduce the movement of empty containers, remove trucks from congested highways, improve air quality and establish an import/export center that will enhance trade.

When considering the long-term future of the Altamont Corridor, additional improvements to the rail, highway and waterway network will be needed. Additional investments to support the new short haul rail service will be needed, especially if that service is to extend to additional locations in the Central Valley. The ongoing operating structure of that service is something that will evolve as the project moves forward.

There are also a number of highway projects in development along the corridor, including improvements to SR 132 and 152, which are important goods movement corridors within the region. Strategic interchange improvements and access improvements, such as Sperry Road which will provide a new connection between I-5 and SR 99 in San Joaquin County will be pursued in the future.

Barge service is also being contemplated between the Port of Oakland and the Port of Stockton (as well as the Port of Sacramento). However, given the current projected cost structure of the service and the infrastructure investment needed upfront, barge service is considered a long-term strategy for the corridor.

Attachment A: TCIF Northern California Trade Projects

Project #*	Sponsor agency	Projects	Project Cost Estimate	Trade request (TCIF+SHOPP)	Match	Match secured	Source	GMAP Recommended	SHOPP eligible	Notes
TIER 1			*costs in thousands*							
Anchor										
1	Port	7th Street Grade Separation	$ 427,000	$ 175,000	$ 252,000	Y	Port	X		Match to come from the Port. Key grade crossing and overpass work at primary gateway to the Port.
2	Port	Martinez Subdivision Improvements	$ 215,000	$ 107,500	$ 107,500	Y	Private	X		The project will increase capacity along the primary rail line in to the Port, and also the Capitol Corridors route. Grade crossings must be addressed.
3	Port	Construct Outer Harbor Intermodal Terminal	$ 220,000	$ 110,000	$ 110,000	Y	Port	X		Intermodal rail terminals at the Port of Oakland to serve both UP and BNSF. Provides increased intermodal capacity to help divert a higher fraction of container traffic to rail instead of truck. Increases rail capacity.
		Anchor Total	**$ 862,000**	**$ 392,500**	**$ 469,500**					
Central Corridor										
4	State	Donner Summit Improvements	$ 85,200	$ 42,600	$ 42,600	Y	UP	X		UP has committed to provide the match (1:1). Passenger rail concessions from UP for Capitol Corridor service from Sacramento to Roseville and Auburn are necessary for support.
5	SACOG	Sacramento Depot Rail Realignment	$ 51,033	$ 20,000	$ 31,033	Y	Local			Rail realignment; match already secured with local funds, greater than 1:1. Improves service efficiency and reliability for both UP and Capitols. Strong local support.
6	SOL	I-80 Eastbound Cordelia Truck Scales Relocation	$ 99,600	$ 49,800	$ 49,800	Y	Local	X	X	Match from bridge tolls. Project improves truck flows near I-80/680 interchange and reduces unsafe conditions of trucks queing onto I-80 and difficult weaving patterns.
		Central Corridor Total	**$ 235,833**	**$ 112,400**	**$ 123,433**					
Altamont Corridor										
7	SJ	Hwy 4 Extension to Port of Stockton (Phase 1)	$ 193,640	$ 96,820	$ 96,820	Y	Local	X		Key access for the Port of Stockton; reduces major truck impacts on local community. Phase 1 match from Measure K. Enterprise zone.
8	ALA	I-880 Improvements @ 29th & 23rd Avenues	$ 95,000	$ 73,000	$ 22,000	Y	Local	X	X	Key truck access route to the Port with clearance issues and difficult on and off ramps. Safety and operational improvements.
9	State	Tehachapi Pass Improvements	$ 107,000	$ 53,500	$ 53,500	Y	BNSF	X		Match from BNSF. Increases key capacity for both domestic export from Valley and transcontinental traffic from Port. Would open up rail capacity in the San Joaquin Valley.
10	ALA/Ct	I-580 Eastbound Truck Climbing Lane	$ 64,300	$ 64,300	$ -	NA	NA	X	X	Critical truck route connecting Bay Area and Central Valley. Strong support from ag community.
	Short haul rail projects									
11	SJ	San Joaquin Rail Commission ROW purchase for future short haul service - Stockton to Fremont.**	$ 150,000	$ 75,000	$ 75,000	Y	ACE/ RMK	X		Purchase of key segments of ROW. This is a critical foundation step to allow for eventual short haul rail service connecting the Central Valley to the Port. ACE match of $75m from Regional sales tax. UP negotiations ongoing; therefore project cost in flux. ACE currently operates on this ROW; multiple benefits from ownership. GMAP recommended continued investment on the Altamont Rail Corridor; this project provides foundation for rail shuttle.
12	Stan.	Short haul terminus at Crows Landing development	$ 57,467	$ 26,000	$ 31,467	Y	Local/ private			Short haul rail terminus option. Stanislaus County requesting investment on rail corridor serving the proposed facility. Private developer contributing to match; value of county land committed to project proposed as additional match source. Requires either operating rights from UP along the Coast Subdivision or investments along East Bay (#18&19) connecting to the Port of Oakland, as well as access to intermodal facility at Port- timing and feasibility of which are unclear. Requires #11 above for mainline rail connection. Operating subsidy required.
13	Kern	Shafter Intermodal facility	$ 30,000	$ 15,000	$ 15,000	Y	Local			Short haul rail terminus option. New intermodal facility in Shafter to serve future short haul rail operation.
		Altamont Corridor Total	**$ 697,407**	**$ 403,620**	**$ 293,787**					
Dredging projects										
14	Port Sact	Port of Sacramento Dredging	$ 83,275	$ 10,000	$ 73,275	Y	Local			Deepening the channel from 30' to 35'. Match to come from Port of Sacramento operating funds. $50-60m needs to come from Corps-because multi-year funding in which the Corps does it's budget (annual capability), the funds can be guaranteed only on an annual basis.Currently the Corps' FFY 2008 budget includes $900,000, and $600,000 has been proposed for the FFY 2009 budget.
15	Port Stock	Port of Stockton dredging- SF Bay to Port of Stockton	$ 140,000	$ 17,500	$ 122,500	Y	Port			Project request is half the local share (75% federal, 25% local) required for Army Corps dredging projects. The project has been approved by the Corps but the federal portion of the funds can be guaranteed only on annual basis because the Corps does its budget based on annual capacity rather than multi-year commitments.
		Dredging Total	**$ 223,275**	**$ 27,500**	**$ 195,775**					
		TOTAL TIER 1	**$ 2,018,515**	**$ 936,020**	**$ 1,082,495**					
TIER 2										
Central Corridor										
16	MTC/ SACOG	Capitol Corridor Operational Improvements	$ 60,000	$ 30,000	$ 30,000	N	TBD			Various rail upgrades along the corridor from Oakland to Sacramento. Improves service for both UP and Capitols.
17	SACOG	I-80 widening project	$ 200,000	$ 80,000	$ 120,000	Y	Local			Operational and capacity improvements. Major truck route. Local sales tax secured for match.
		Central Corridor Total	**$ 260,000**	**$ 110,000**	**$ 150,000**					
Altamont Corridor										
Short haul rail: Bay Area - Central Valley										
18	ALA	Oakland Subdivision ROW Purchase	$ 60,000	$ 30,000	$ 30,000	N	None			Short haul rail alignment option linking Niles Junction to Port of Oakland. Final cost is unclear as it will be a negotiation with UP.
19	ALA/SJ	Alameda Creek Bridge	$ 32,000	$ 16,000	$ 16,000	N	None			Short haul rail alignment option- provides connection at Niles Junction to the Oakland Sub separating passenger and freight service.
Altamont highway projects										
20	ALA/ SJ	WB I-580 Truck Climbing Lane Over Altamont	$ 50,000	$ 25,000	$ 25,000	N	Local	X		Match source needed. Caltrans staff is working on project development.
21	Stan.	State Route 132 Improvements	$ 100,000	$ 50,000	$ 50,000	N	None			Expand capacity on Rt 132; 15 mile project to connect w/ SR99. Key truck route in the Valley. Have $14m federal available for easternmost portion, and possible TCRP funds. Phasing possbile.
22	SJ	Hwy 4 Extension to Port of Stockton (Phase 2)	$ 100,000	$ 50,000	$ 50,000	N	TBD	X		Phase 2 of key Port of Stockton connection (#7). Match tbd.
23	SJ	Sperry Road	$ 65,000	$ 32,500	$ 32,500	N	Local			Extension of Sperry Road results in a new east/west arterial connection bt I-5 and SR 99. Includes 3 grade separations. EIR is complete. Match possibly available in regional sales tax.
24	SJ	I-5/580 SR 32/Bird Interchange	$ 41,000	$ 20,500	$ 20,500	N	Local/ private			Construction of new interchange on SR132 and widenting of SR132 bt I-5/580. Would help serve aggregate businesses in the area. Match may come from private sector but is not committed.
25	Port	North Airport Air Cargo Road Access Improvements	$ 10,000	$ 5,000	$ 5,000	Y	Port			Project is first phase, another $8.4M second phase for a later date. Match is Port funds. Improves capacity and access to North Airport air cargo tenants.
26	SJ	I-5 widening project- Stockton	$260,000	$130,000	$130,000	Y	Local			Widens a key segment of Interstate 5 in Central and North Stockton which carries up to 18 % trucks and is a key connector to the Port of Stockton. Matching funds through Measure K and local sources.
		Altamont Corridor Total	**$ 718,000**	**$ 359,000**	**$ 359,000**					
		TIER 2 TOTAL	**$ 978,000**	**$ 469,000**	**$ 509,000**					
		TOTAL TIER 1 AND 2	**$ 2,996,515**	**$ 1,405,020**	**$ 1,591,495**					

*Project numbers are NOT an indication of priority ranking. They are for identification purposes only.

Northern California Trade Projects